3.3 Biological Resources

This section analyzes the proposed project's and non-clustered scenario's potential impacts on biological resources. As referenced throughout this section, the "study area" and "project site" both refer to the boundary that encompasses the Saddle Crest Project, which encompasses both the proposed project and the non-clustered scenario. The analysis below defines the range of biological resources potentially subject to impacts, identifies elements of the proposed project and non-clustered scenario that may have measurable impacts on these resources, and describes proposed mitigation measures and/or project design features as needed to reduce the project's potential impact on sensitive biological resources. Studies completed for the study area that are referenced in this section include:

- *Biological Resources Assessment*, PCR Services Corporation, March 2012b
- *Saddle Crest Tree Management and Preservation Plan*, Dudek, July 2011
- *Addendum: Saddle Crest Tree Management and Preservation Plan*, Dudek, March 2012
- *Results of Focused Coastal California Gnatcatcher Surveys*, PCR Services Corporation, July 2010
- *Investigation of Jurisdictional Wetlands and Waters of the U.S.*, PCR Services Corporation, January 2012a

The analysis in this section is based upon information gathered from the above-mentioned technical reports. Refer to Appendix D for more in-depth discussion on the methodologies utilized to support the studies referenced above.

3.3.1 Environmental Setting

Regulatory Framework

Federal Clean Water Act, Section 404

As administered by USACOE, a permit is required for any filling or dredging within "waters of the U.S. The USACOE defines "waters of the U.S." in 33 CFR (Code of Federal Regulations) 328.3 as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

   b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   c. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
5. Tributaries of the above waters;
6. The territorial seas;
7. Wetlands adjacent to the above waters (other than waters that are themselves wetlands). Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of Clean Water Act (CWA) (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the U.S.; and
8. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Under normal circumstances, the definition of wetlands requires three wetland identification parameters be present: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands may include freshwater marsh, seasonal wetlands, and vernal pool complexes that are adjacent to perennial waters of the U.S.

In certain situations, termed "*Atypical Situations*" by the USACOE, one or more of the three parameters (vegetation, soil, and/or hydrology) may have been sufficiently altered by recent human or natural events to preclude the presence of wetland indicators of the parameter. The USACOE description of atypical situations includes man-induced wetlands. A man-induced wetland is an area that has developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities. Some man-induced wetlands may be subject to Section 404 of the CWA.

"Other waters of the U.S." refers to those hydric features that are regulated by the CWA but are not defined as wetlands (33 CFR 328.4). "Other waters" includes the seasonal streams without vegetation that are often common in southern California. To even be considered as potentially jurisdictional, these features must first exhibit a defined bed and bank and an ordinary high water mark. The term "ordinary high water mark" (OHWM) refers to that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Examples of other waters of the U.S. may include rivers, creeks, ponds, and lakes. Swales are typically not considered waters of the U.S.

In January 2001, the U.S. Supreme Court issued a decision in the case of the *Solid Waste Agency of Northern Cook County v U.S. Army Corps of Engineers* (herein referred to as SWANCC) that altered the USACOE's regulatory authority over wetlands that are isolated from navigable waters. Since the SWANCC decision, waters covered solely by this definition by virtue of their use as habitat by migratory birds are no longer considered "waters of the U.S." The Supreme Court's opinion did not specifically address what other connections with interstate commerce might support the assertion of CWA jurisdiction over "nonnavigable, isolated, intrastate waters" under this definition, and the USACOE is recommending case by case consideration. A factor that may be relevant to this consideration includes, but is not limited to, the following: jurisdiction of isolated, intrastate, and nonnavigable waters may be possible if their use, degradation, or destruction could affect other "waters of the U.S.," thus establishing a significant nexus between the water in question and other "waters of the U.S." (USACOE, undated memorandum). Although the Supreme Court did not specifically address the meaning of the word "isolated," it upheld the jurisdictional status of "adjacent" wetlands (and other waters), which are by definition wetlands that are "bordering, contiguous, or neighboring" other jurisdictional waters. This definition does not, however, address the degree of proximity necessary to establish that one wetland (or other water) is "adjacent" to a known jurisdictional water. As established by the Supreme Court in the *United States v. Riverside Bayview Homes, Inc.* in 1985 "wetlands separated from other waters by man-made dikes or barriers, natural river berms, beach dunes, and the like are 'adjacent wetlands."

In response to the U.S. Supreme Court's decision in *Rapanos v. United States* and *Carabell v. United States* (herein referred to as "Rapanos"), the USACOE and USEPA have issued a set of guidance documents detailing the process for determining CWA jurisdiction. The USEPA and USACOE issued a summary memorandum of the guidance for implementing the Supreme Court's decision in Rapanos that addresses the jurisdiction over waters of the U.S. under the CWA. The complete set of guidance documents, summarized as key points below, should be used to collect relevant data for evaluation by the USEPA and the USACOE to determine CWA jurisdiction over the project site and to complete the "significant nexus test" as detailed in the guidelines and the USACOE Approved Jurisdictional Determination Form. Alternately, an applicant can essentially concede jurisdiction by completing a preliminary jurisdictional determination form and thereby avoid the time it takes to process an approved jurisdictional determination.

The significant nexus test includes consideration of hydrologic and ecologic factors. The significant nexus test takes into account physical indicators of flow (such as evidence of an OHWM), whether a hydrologic connection to a traditional navigable water exists, and whether the aquatic functions of the water body have a significant effect (more than speculative or insubstantial effect) on the chemical, physical, and biological integrity of a traditional navigable water. The USACOE and USEPA will apply the significant nexus standard to assess the flow characteristics and functions of the tributary drainage to determine if it significantly affects the chemical, physical and biological integrity of downstream traditional navigable waters.
The regulations and policies of the USACOE regulatory program mandate that non-water dependent projects that require an individual permit avoid filling wetlands unless it can be

demonstrated that no practicable alternatives (to filling wetlands) exists. The USACOE has primary federal responsibility for administering regulations that concern jurisdictional waters and wetlands within the project site. Potential jurisdictional waters identified within the project site included areas meeting the technical criteria of jurisdictional wetlands (i.e., seasonal wetland pools and seasonal ponds), aquatic habitat (i.e., perennial and ruderal ponds), and non-wetland areas that may be considered jurisdictional (i.e., non-wetland channel). These areas must also be evaluated in light of the SWANCC and Rapanos decisions. Regulated activities in jurisdictional waters including wetlands need authorization from the USACOE to be in compliance with Section 404 the CWA.

Federal Clean Water Act, Section 401

The mission of the California State Water Resource Control Board (SWRCB) is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

> "*any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.*"

Therefore, before the USACOE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB. A complete application for 401 Certification will include a detailed Water Quality Management Plan that will address the key water quality features of the project to ensure the integrity of water quality in the area during and post-construction. Under separate authorities granted by state law (i.e., the Porter-Cologne Water Quality Control Act), a RWQCB may choose to regulate discharges of dredge or fill materials by issuing or waiving (with or without conditions) Waste Discharge Requirements (WDRs), a type of state discharge permit, instead of taking a water quality certification action. Processing of a WDR is similar to that of a Section 401 certification; however, the RWQCB has slightly more discretion to add conditions to a project under the Porter-Cologne Act than under the federal CWA.

Endangered Species Act

Under the Endangered Species Act, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 USC 1533(c)). Pursuant to the requirements of Endangered Species Act, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed or species proposed for listing may be present in the project region and determine whether the proposed project would have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under Endangered Species Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536(3), (4)). Project-related impacts to these species or their habitats would be considered "significant." The "take"

prohibition of the Endangered Species Act prohibits any action that injures or kills member of an endangered or threatened wildlife species.

Section 4(a)(3) and (b)(2) of the Endangered Species Act requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in section 3(5)(A) of the Endangered Species Act as: (1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special management consideration or protection; and (2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, domestically implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird…" (U.S. Code Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

U.S. Army Corps of Engineers

The USACOE regulates "discharge of dredged or fill material" into "waters of the U.S.," which includes tidal waters, interstate waters, and all other waters that are part of a tributary system to interstate waters or to navigable "waters of the U.S.," the use, degradation, or destruction of which could affect interstate or foreign commerce, or which are tributaries to waters subject to the ebb and flow of the tide (33 C.F.R. 328.3(a)), pursuant to provisions of Section 404 of the CWA.

The USACOE generally takes jurisdiction within rivers and streams to the OHWM determined by erosion, the deposition of sediments or debris, and changes in vegetation. The USACOE defines jurisdictional wetlands as areas that contain hydrophytic vegetation, hydric soils, and wetland hydrology, in accordance with the procedures established in the USACOE *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and updated in the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACOE, 2006).

The most recent revision occurred on June 5, 2007, when the USACOE and USEPA issued a series of guidance documents (USACOE and USEPA, 2007a, 2007b, and 2007c) which outlined the requirements and procedures to establish jurisdiction under the CWA and the Rivers and Harbors Act of 1899. These documents are intended to be used for all jurisdictional delineations

but also provide guidance for the jurisdictional determination of potentially jurisdictional features affected by the following two United States Supreme Court rulings:

1. SWANCC held that the CWA does not give the federal government regulatory authority over non-navigable, isolated, intrastate waters. As a result of this decision, some previously regulated isolated depressional areas, such as mudflats, sandflats, wetlands, prairie potholes, wet meadows, playa lakes, natural ponds, and vernal pools which are not hydrologically connected to other intra- or inter-state "waters of the U.S.," are no longer regulated by the USACOE. A jurisdictional determination of these types of isolated features is typically addressed on a case-by-case basis.
2. The consolidated cases *Rapanos v. the United States* and *Carabell v. the United States* 126 U.S. Ct. 2208 (2006) (jointly referred to as "Rapanos") outlines the conditions and criteria utilized by the USACOE to assess and claim jurisdiction over non-navigable waters. Under this ruling certain adjacent wetlands and "not relatively permanent" non-navigable tributaries are required to have a "significant nexus" to downstream traditional navigable waters to be considered jurisdictional. The "significant nexus" is established through the consideration of a variety of hydrologic, geologic, and ecological factors specific to the particular drainage feature in question.

However, these isolated and "not relatively permanent" features may still be regulated by the CDFG under Fish and Game Code Section 1600 or the RWQCB under the Porter-Cologne Water Quality Act.

California Department of Fish and Game Code

In accordance with Section 1600 et seq. of the Fish and Game Code (Streambed Alteration), the CDFG regulates activities that "*will substantially divert, obstruct, or substantially change the natural low or bed, channel or bank, of any river, stream, or lake designated by the Department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit*." The CDFG takes jurisdiction to the top of bank of the stream, or the limit of the adjacent associated vegetation, referred to in this report as "streambed and associated riparian habitat."

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, it must first notify the CDFG of the proposed project. In the course of this notification process, the CDFG will review the proposed project as it affects streambed habitats within the project area. The CDFG may then place conditions on the Section 1602 clearance to avoid, minimize, and mitigate the potentially significant adverse impacts within CDFG jurisdictional limits.

Section 2080 of the Fish and Game Code states, "*No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.*" Pursuant to Section 2081 of the Code, the CDFG may authorize individuals or public agencies to import, export, take, or possess, any state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if: (1) the take is incidental to an otherwise lawful activity; (2) impacts of the authorized take are minimized and fully mitigated; (3) the permit is consistent with any regulations adopted pursuant to any recovery plan for the species; and (4) the applicant ensures adequate funding to implement the measures required by the CDFG. The CDFG makes this determination based on available scientific information and considers the ability of the species to survive and reproduce. Due to the potential presence of state-listed rare, threatened, or endangered species on the project site, Sections 2080 and 2081 of the Code were considered in this evaluation.

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFG is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. CDFG has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.

California Public Resource Code 21083.4 – Oak Woodlands Conservation

California Public Resource Code (PRC) 21083.4 provides that a county shall determine whether a project that is within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. Section 21083.4 also provides that significant impacts shall be mitigated through one or more measures including conservation of oak woodlands, tree planting, contributions to the Oak Woodlands Conservation Fund, and other measures that are developed by the county.

California Environmental Quality Act

CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species under the federal Endangered Species Act or the California Endangered Species Act shall be considered rare**,** endangered or threatened if the species can be shown to meet certain

specified criteria which are generally derived from the criteria in those Acts. Under *CEQA Guidelines* Section 15380, a species of animal or plant is defined as endangered "*when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors*." A species of animal or plant is defined as rare when either: "*(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act*."

Regional Water Quality Control Board

The RWQCB regulates "discharging waste, or proposing to discharge waste, within any region that could affect "waters of the State" (Water Code § 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act. "Waters of the State" are defined as "*any surface water or groundwater, including saline waters, within the boundaries of the State*" (Water Code § 13050 (e)). Before the USACOE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, RWQCB may still require a permit (i.e., WDRs) under the Porter-Cologne Water Quality Control Act.

Orange County NCCP/HCP

The Natural Community Conservation Act, codified at Fish and Game Code Sections 2800-2840, authorizes the preparation of Natural Community Conservation Plans (NCCPs) to protect natural communities and species while allowing a reasonable amount of economic development. At the same time, the federal Endangered Species Act, Section 10, provides for the preparation of Habitat Conservation Plans (HCPs) to permit the taking of federally-listed threatened and endangered species. Under both state and federal statutes, joint planning processes result in the preparation and adoption of a NCCP/HCP. The project study area is within the NCCP/HCP for the County of Orange Central and Coastal Subregion, specifically within the Central Subregion of the NCCP/HCP, and is therefore analyzed in this EIR in the context of the NCCP/HCP with regards to the special status species identified in the NCCP/HCP and the mitigation provisions of the NCCP/HCP.

The NCCP/HCP was reviewed and approved by the U.S. Fish and Wildlife Service (USFWS) and CDFG in 1996 to address protection and management of coastal sage scrub (CSS) habitat and CSS-obligate species, and other covered habitats and species, and mitigate anticipated impacts to those habitats and species, on a programmatic, sub-regional level, rather than on a project-by-project, single species basis.

It should be noted that a Southern Subregion NCCP/HCP was proposed, but CDFG did not adopt the NCCP. However, the USFWS finalized the Southern Subregion HCP to authorize development of Rancho Mission Viejo and select County projects (i.e., expansion of a landfill and an extension of La Pata). There is an *in-lieu* fee program authorized for only a few select

development sites within Coto de Caza (per Jonathan Snyder's, USFWS, voicemail to Stephanie Gasca, PCR Services Corporation, on January 24, 2012).

The Central and Coastal Subregion NCCP/HCP (herein referred to as "NCCP/HCP") includes a habitat reserve in excess of 37,000 acres for the protection of CSS, other upland habitats, the coastal California gnatcatcher, and other primarily CSS-dependent species identified in the NCCP/HCP. Specifically, the NCCP/HCP, USFWS, and CDFG authorizes "take" under the federal and state endangered species acts of 39 "identified species" of plants and wildlife (including "covered" and "conditionally covered" species). Further, the NCCP/HCP contains requirements for adaptive management, interim management, and funding management for the reserve, as well as procedures and minimization measures related to the "take" of "identified species" and habitat. Thus, the NCCP/HCP provides for the protection and management of a broad range of plant and wildlife populations, while providing certainty to the public and affected landowners with respect to the location of future development and open space in the subregion.

Although the entire project site falls within the Central Subregion of the NCCP/HCP, most of the project site is within the Congressional boundary[1] of the Cleveland National Forest (approximately 96.6 acres). The Central and Coastal NCCP/HCP does not specifically address private landholdings that are within the Congressional boundaries of the Cleveland National Forest; therefore, the NCCP/HCP is not applicable to such properties.

The remainder of the project site (approximately 17.0 acres) adjacent to the southwest boundary along Santiago Canyon Road is outside of the forest's boundary, and is covered by the NCCP/HCP. This portion of the study area is therefore considered to be within the NCCP/HCP's in-lieu fee area. Projects within the in-lieu fee area of the Orange County NCCP/HCP can mitigate for losses to coastal sage scrub habitat with the payment of a $65,000 fee per acre to the Nature Reserve of Orange County (McAfee, 2006 per PCR Services Corporation, 2012). In addition, project applicants using the in-lieu fee program to mitigate for impacts to coastal sage scrub can also utilize the mitigation opportunities provided through the NCCP/HCP as applicable.

County of Orange General Plan

Resources Element – Natural Resources Component

Goal 1: Protect wildlife and vegetation resources and promote development that preserves these resources.

Objective 1.1: To prevent the elimination of significant wildlife and vegetation through resource inventory and management strategies.

[1] The Congressional boundary of the Cleveland National Forest reflects the boundary adjustment for the national forest per the Cleveland National Forest Land Exchange Act of 1995. As a privately owned in-holding, the project site is not subject to regulations relating to the Cleveland National Forest such as the Cleveland National Forest Land and Resource Management Plan.

Foothill/Trabuco Specific Plan

As stated in the F/TSP, the purpose of preserving wildlife movement corridors is to "*ensure the future viability and movement of wildlife through preservation of necessary habitat and wildlife movement areas*." The Oak Woodlands designation in the F/TSP is intended to "*ensure preservation of significant stands of oak woodland*," as designated in the F/TSP (Exhibit II-4) or by a qualified biologist as having characteristics of an oak woodland plant community that is extensive enough to be considered habitat of local significance. The purpose and intent of the F/TSP's streambed preservation designation is to provide for the preservation of stream channels in their natural condition.

The Resources Overlay Component includes goals and programs related to wildlife corridors, oak woodlands, and streambeds which are relevant to biological resources. These goals and programs are listed below.

II.C.2. Resources Overlay Component – Wildlife Corridor

2.4 Uses/Setbacks Adjacent to Wildlife Corridors

Except where compliance with the provisions would preclude development of a single residence on a building site existing prior to the effective date of the Specific Plan, uses adjacent to designated wildlife corridors shall be restricted as follows:

a. Development shall maintain a minimum 50-foot setback of all structures and barrier fencing from all corridors. Uses within the setback zone shall be limited to low-intensity, residential-related activities such as recreation and private open space.

b. Development shall provide planting of a minimum 25-foot buffer zone, within the required 50-foot setback, of native shrubs and trees as specified by the corridor-specific analysis. In areas where sufficient buffering already exists, landscape screening may not be necessary. Planting shall be informal and shall emphasize native trees and shrubs that provide maximum screening. Landscaping within the buffer zone shall be maintained by the homeowner or by a homeowners association.

c. Exterior lighting shall be prohibited within the 50-foot setback zone. Lighting for outdoor nighttime activities such as playing fields or tennis courts shall be prohibited. Light sources shall be directed away from wildlife corridors. Lighting may be permitted on roads that transverse corridors where necessary for public safety purposes.

Fencing within the 50-foot setback zone shall be limited to open fencing (i.e., split rail fencing) which does not exceed 40 inches in height, measured from the finished grade, in order to allow for the mobility of animals.

II.C.3. Resources Overlay Component – Wildlife Corridor

3.2 Designation of Oak Woodland Boundaries

a. Parcels containing oak woodlands as designated in Exhibit II-4 and parcels within 100 feet of any designated oak woodland shall be required to prepare a site-specific oak woodlands analysis prepared by a qualified biologist/arborist to determine the precise boundary of oak woodlands.

c. Oak woodlands shall be preserved in an undisturbed state to the greatest extent possible while still allowing for reasonable development. The site-specific analysis shall identify the level of impact of the project and methods of reducing or avoiding adverse impacts of the project. The impact analysis shall consider all forms of disturbance resulting from development, including changes in runoff, impacts within the dripline of trees, etc. If oak trees are proposed to be transplanted, the analysis shall identify suitable locations for the transplantation of oak trees.

d. Prior to recordation of a final tract /parcel map or the issuance of grading permits, each affected applicant shall offer for dedication in fee or preservation easements to the County of Orange areas containing oak woodlands, as identified for preservation in an approved Tree Management/Preservation Plan.

3.3 Tree Management/Preservation Plan

a. Any oak tree removed which is greater than five inches in diameter at 4.5 feet above the existing grade shall be transplanted, unless a certified arborist confirms that the tree would not survive transplantation. Trees that cannot be successfully transplanted are to be replaced according to a provided replacement ratio scale. Any trees that die within a five-year timeframe (monitoring period) shall be replaced according to the scale.

b. The Tree Management and Preservation Plan shall identify those trees exceeding five inches in diameter that are proposed for removal and the proposed location of replacement trees.

c. In the event that all transplanted or replacement trees cannot be feasibly located on the property, an off-site mitigation program may be permitted; however, all replacement and transplanted trees shall be located within the Specific Plan Area.

The proposed amendments to the F/TSP include amendments that would allow replacement rather than transplantation if a tree is either in poor health or would not survive transplantation and provides for oak trees to be replaced under either the tree replacement scale or an approved Tree Management and Preservation Plan that would provide more effective mitigation. See Section, 3.9, *Land Use*, of this Draft EIR for further discussion of proposed F/TSP amendments.

Cleveland National Forest Land and Resource Management Plan

The Cleveland National Forest Land and Resource Management Plan, which applies to federally owned land within the Cleveland National Forest, describes the strategic direction for managing forest service lands and its resources. Goals of the plan pertaining to biological resources are to

increase habitat capability to provide for diverse and viable fish populations; protect and enhance riparian areas; maintain and enhance the viability of special-status plant species; manage chaparral lands to meet resource program needs; manage coniferous forest and broadleaf woodland vegetation types to maintain and enhance the health of the trees and to provide suitable habitat for wildlife; provide for diverse and viable wildlife communities through increased habitat improvement; ensure threatened and endangered species reach recovery levels; achieve wildlife habitat diversity of chaparral through prescribed burns; and manage the Agua Tibia, San Mateo Canyon, Pine Creek, and Hauser wilderness areas. Although the study area lies within the Congressional boundaries of the Cleveland National Forest, the study area is a privately held property within the Congressional boundary; therefore, the property is not managed by the U.S. Forest Service (USFS) or subject to the Cleveland National Forest Land and Resource Management Plan.

Existing Conditions

The existing biological resources at the study area were determined through a review of relevant literature, field reconnaissance surveys, focused biological studies, and jurisdictional delineations/evaluations. Biological resources evaluated included sensitive habitats, special-status plant and animal species, and wildlife movement corridors. The potential for special-status species to occur on the study area was based on the results of biological assessments and focused surveys conducted on the study area, the proximity of the site to previously recorded occurrences in the California Natural Diversity Database (CNDDB), CDFG, USFWS, and Biogeographic Information and Observation System (BIOS) data. Other sources of information used to determine habitat suitability and potential for presence of sensitive biological resources include aerial photographs, topographic maps, soil survey maps, geological maps, climatic data, previous biological studies, and project plans.

The project site lies in the foothills of the Santa Ana Mountains, adjacent to Cleveland National Forest, within an unincorporated portion of Orange County (see Figure 2.1). The project site is located north of the community of Portola Hills and south of the rural canyon community of Modjeska. Site elevations range from approximately 1,200 feet in the southwestern portion of the project site to 1,800 feet in the northeastern portion of the project site. The site contains one U.S. Geological Survey (USGS) blue line stream within the Aliso Creek watershed, and topography on-site is diverse, ranging from flat grasslands to steep, densely vegetated hills. Disturbance due to the 2007 wildfire is evident on the site, in addition to disturbance due to grazing within lower elevations of the southern portion of the project site. Surrounding land use consists mostly of open space, with some rural and suburban residential development. Preserved open space within close proximity of the project site includes the Cleveland National Forest and Limestone-Whiting Wilderness Park.

Plant Communities and Habitat Types

The majority of the project site was burned in the October 2007 Santiago Fire. Periodic wildfires are a part of the ecological history of Southern California's foothill and mountain regions and have their origins in both natural (e.g., lightning strikes) and anthropomorphic (human error) causes. Although the fire resulted in a temporary elimination of much of the vegetation on-site,

these plant communities are well-adapted to fire and are already exhibiting signs of recovery. Previous vegetation assessments were conducted for the project site in 2000, 2002, 2007, and 2009, allowing for a comparative analysis of native vegetation communities prior to, and after the 2007 wildfire. Vegetation was verified and updated in 2011 to document the communities, which have reestablished since the fire. The 2011 vegetation update reflects the current conditions of the project site, as shown in **Figure 3.3-1**. Distribution and locations of all plant communities are described below and provided in Appendix D (PCR Services Corporation, 2012b).

Deerweed

The deerweed community within the study area is dominated by deerweed (*Lotus scoparius*). These areas exhibited evidence of previous disturbance and are dominated by this pioneer species. A total of 1.1 acres of deerweed occurs within the project site.

Sagebrush Scrub

The sagebrush scrub community within the study area is dominated by California sagebrush (*Artemisia californica*). Associated species within this community include black sage (*Salvia mellifera*), deerweed, orange-bush monkey flower (*Mimulus aurantiacus*), and laurel sumac (*Malosma laurina*) with an understory of non-native grasses. A total of 3.8 acres of sagebrush scrub occurs within the project site.

Sagebrush Scrub/Southern Mixed Chaparral

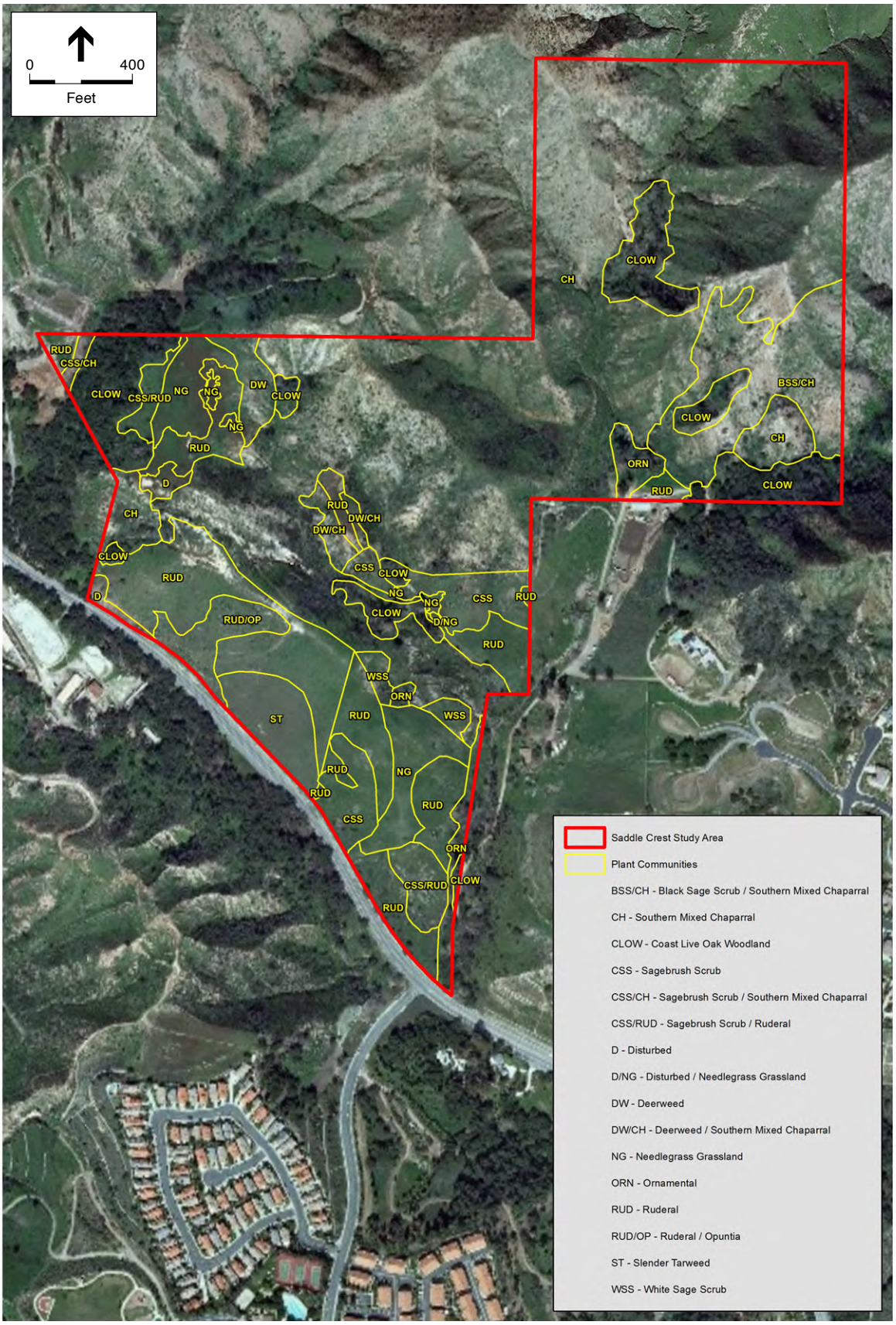
Sagebrush scrub/southern mixed chaparral is found within this community and represents an intermingling or gradation of scrub and chaparral species. On-site, this community is dominated by sagebrush with California buckwheat (*Eriogonum fasciculatum*), laurel sumac, sugar bush (*Rhus ovata*), our Lord's candle (*Yucca whipplei*), and scrub oak (*Quercus berberidifolia*). A total of 0.2 acre of sagebrush scrub/southern mixed chaparral occurs within the project site.

Sagebrush Scrub/Ruderal

Sagebrush scrub/ruderal is found within this community and is dominated by California sagebrush with non-native, ruderal species comprising between 20 and 45 percent of the vegetative cover. Associated ruderal, weedy species observed within this community include tocalote (*Centaurea melitensis*) and artichoke thistle (*Cynara cardunculus*). This community totals 1.9 acres in two patches within the project site.

White Sage Scrub

White sage scrub is dominated by white sage (*Salvia apiana*). Associated species include deerweed, California sagebrush, and laurel sumac with an understory composed mostly of California everlasting (*Gnaphalium californicum*). A total of 0.8 acre of white sage scrub occurs within the project site.



SOURCE: Aerial Express, 2009; PCR Services Corporation, 2012.

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Figure 3.3-1

Plant Community Map

Southern Mixed Chaparral

Southern mixed chaparral consists of a mix of dominant chaparral species including black sage, laurel sumac, sugar bush, our Lord's candle, and scrub oak. A total of 62.4 acres of southern mixed chaparral occur within the project site, mainly along the higher elevation slopes.

Black Sage Scrub/Southern Mixed Chaparral

Black sage scrub/southern mixed chaparral is a type of ecotone/sere (a transition between two plant communities) which represents the intermingling or gradation of scrub and chaparral species. On-site, this community is dominated by black sage with significant amounts of California sagebrush, California buckwheat, laurel sumac (*Malosma laurina*), sugar bush, our Lord's candle, and scrub oak. A total of 7.1 acres of black sage scrub/southern mixed chaparral occurs within the northeastern portion of the project site.

Needlegrass Grassland

Needlegrass grassland is often associated with coastal sage scrub and is found in pockets in close proximity to coastal sage scrub and annual grassland. This community consists of at least 10 percent cover of native purple needlegrass (*Nassella pulchra*). The remaining vegetative cover is made up of non-native grasses found in annual grassland, such as wild oat (*Avena barbata*), slender wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild radish (*Raphanus sativus*), artichoke thistle, mustard (*Brassica* sp.), coyote melon (*Curburbita foetidissima*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), coastal goldenbush (*Isocoma menziesii* var. *menziesii*), mayweed (*Anthemis cotula*), and western ragweed (*Ambrosia psilostachya*), as well as a variety of annual, showy flowers including golden stars (*Bloomeria crocea*), purple owl's clover (*Castilleja exserta*), lilac mariposa lily (*Calochortus splendens*), and blue-eyed grass (*Sisyrinchium bellum*). A total of 4.1 acres of needlegrass grassland occurs in patches within the project site.

Coast Live Oak Woodland

Coast live oak woodland is dominated by coast live oak (*Quercus agrifolia*) in the tree canopy with individual western sycamores (*Platanus racemosa*) scattered throughout. The shrub layer is dominated by toyon (*Heteromeles arbutifolia*) and blue elderberry (*Sambucus mexicana*), while the forbs are dominated by poison oak (*Toxicodendron diversilobum*), wild rose (*Rosa californica*), nightshade (*Solanum* sp.), and several ferns where more mesic conditions persist. Coast live oak woodland totals 9.5 acres within the project site and is generally found along the larger drainages on-site.

Slender Tarweed

The slender tarweed community, located in a previously disturbed portion of the study area consists of a monotypic stand (i.e., no other species are present) of slender tarweed (*Hemizonia fasciculata*). A total of 2.4 acres of slender tarweed occurs within the southwestern portion of the project site.

Disturbed

Disturbed or barren areas either completely lack vegetation or contain a sparse cover of primarily ruderal species. Disturbed areas within the project site take the form of barren areas in proximity

to development and barren areas due to other disturbances. Disturbed areas occupy 0.7 acre within the project site. Disturbed/needlegrass grassland is found within this community and exhibits evidence of disturbance with a subdominance of needlegrass. This community totals less than 0.1 acre.

Ornamental

Ornamental landscaping consists of areas of introduced trees, shrubs, herbaceous annuals, and turf grass associated with development. These areas are in close proximity to, and associated with, rural residential development. Several areas, comprising a total of 1.9 acres within the project site, support ornamental plantings.

Ruderal

Ruderal vegetation occurs in areas that are undergoing substantial and continual disturbance. Ruderal dominated areas are dominated by early successional, pioneering, herbaceous species that are adapted to readily colonize disturbed ground. Dominant species within this community on-site include artichoke thistle, mustard, red-stemmed filaree, and annual bur clover. Remnant patches of native species within these areas are indicative of the community that occurred in the area prior to the disturbance. A total of 15.1 acres of ruderal vegetation occurs within the project site.

Ruderal/Opuntia

Ruderal/Opuntia predominantly supports non-native (ruderal) vegetation and also remnant patches of coastal prickly pear, indicating it formerly supported southern cactus scrub. A total of 1.8 acres of Ruderal/Opuntia occurs within the southern portion of the project site along Santiago Canyon Road.

General Wildlife

The project site provides functional habitat for a variety of wildlife species, both within the project site and within the context of regional biological systems. The following section discusses wildlife populations within the project site, segregated by taxonomic group. Representative examples of each taxonomic group either observed or expected within the project site are provided.

Amphibians

Terrestrial amphibian species may or may not require standing water for reproduction. Terrestrial species avoid desiccation by burrowing underground within crevices in trees, rocks, and logs and under stones and surface litter during the day and dry seasons. Due to their secretive nature, terrestrial amphibians are infrequently observed, but may be quite abundant if conditions are favorable. Aquatic amphibians are dependent on standing or flowing water for reproduction. Such habitats include fresh water marshes and open water (reservoirs, permanent and temporary pools and ponds, and perennial streams). Most of the habitat within the project site is too dry to support amphibian species on a permanent basis; however, arboreal salamander (*Aneides lugubris)* has a potential to occur on-site.

Reptiles

Reptilian diversity and abundance typically varies with habitat type and character. Some species prefer only one or two natural communities; however, most will forage in a variety of communities. A number of reptile species prefer open habitats that allow free movement and high visibility. Most species occurring in open habitats rely on the presence of small mammal burrows for cover and escape from predators and extreme weather. A variety of regionally common reptiles are expected to occur within the study are where habitat types and conditions are favorable. Reptile species observed within the project site include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris multiscutatus*), and California whipsnake (*Masticophis laeralis*).

Birds

The habitat within the project site provides foraging and cover habitat for year-round and seasonal avian residents. A number of common, raptor species (i.e., birds of prey) were observed within the project site, including the following raptor species: Cooper's hawk (*Accipiter cooperi*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and barn owl (*Tyto alba*).

Mammals

The project site provides foraging and cover habitat for a number of common mammal species. Mammals observed or otherwise detected within the project site include desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), bobcat (*Felis rufus*), and mule deer (*Odocoileus hemionus*).

Wildlife Movement Corridors

Wildlife movement corridors provide a connection between two or more habitat areas that are often larger or superior in quality to the linkage. Such linkages can be quite small or constricted, but can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations. The U.S. Court of Appeals, Ninth Circuit, has defined wildlife corridors as "*…avenues along which wide-ranging animals can travel, plants can propagate, genetic interchange can occur, populations can move in response to environmental changes and natural disasters, and threatened species can be replenished from other areas*."

The resources available within the project site support a variety of wildlife movement functions on some scale. Movement on a smaller or "local" scale occurs throughout the surrounding vicinity as well as within the project site itself. The project site contains natural communities and drainages which provide foraging habitat and a water supply for both herbivorous and carnivorous species. Data gathered from biological surveys indicate that the project site contains habitat that supports a variety of species of amphibians, reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the project site and immediate vicinity. Populations of animals such as insects, amphibians, reptiles, small mammals, and a few bird species may find all their resource requirements without

moving far or outside of the project site at all. Occasionally, individuals expanding their home range or dispersing from their parental range will attempt to move outside of the project site.

From a regional perspective, the project site is situated southwest and within the Congressional boundary of the Cleveland National Forest and northeast of Limestone-Whiting Wilderness Park. The project site is surrounded by open space to the north, east, and west, with some rural residences within Modjeska Canyon to the north, and adjacent to residential development to the south and southeast.

Cleveland National Forest, as well as several regional parks connecting to the forest (e.g., Limestone-Whiting Wilderness Park), provide core habitat for wildlife. This expanse of undisturbed open space harbors an abundance of wildlife which may, in turn, facilitate a substantial amount of wildlife movement within and through the project site. Overall, there are no physical barriers to the north, east, or west of the project site, with the exception of sparse rural residential development along Santiago Canyon Road and within the community of Modjeska approximately 0.5 mile to the north and northwest. The northernmost portion of the project site is relatively undisturbed and supports a variety of natural resources. The habitat within these areas exists in a natural state and part of a functioning ecosystem that provides foraging habitat for both herbivorous and carnivorous species. There are also several drainages on-site or in close proximity that are tributaries to Aliso Creek and support a water supply for wildlife during at least part of the year. The project site is likely utilized for regional movement in east-west and northeast-southwest directions, particularly for species such as larger mammals that require larger home range areas and dispersal distances or dense vegetative cover (e.g., mountain lion and bobcat). The density of the residential development of Portola Hills to the south as well as Santiago Canyon Estates to the southeast inhibit regional wildlife movement through the project site in a southerly direction, with the exception of those wildlife species that are adapted to urban areas (e.g., raccoon, skunk, coyote, and birds).

With the exception of Santiago Canyon Road, the project site is undeveloped and is mostly surrounded by open space; thus, wildlife in the area can move freely through the habitat on-site and likely do not follow any established corridors as of yet (other than through the oak woodland following a riparian corridor in the western portion of the project site), but rather have travel routes of concentrated use. Wildlife typically follow travel routes which provide the path of least resistance such as ridgelines, which may provide an easier travel route through steep terrain, and wooded drainages, which offer water, food, and cover. These ridgelines and drainages also provide access between higher and lower elevation communities within the project site and surrounding vicinity. Direct observations of deer during field surveys substantiate the fact that wildlife utilizes the ridges within the project site. Large mammals, such as the mountain lion, live in several different habitat types that provide adequate cover and a plentiful source of prey, such as deer. Mountain lions serve as a good indicator species because they exist at low densities and require large areas of habitat for their home ranges and thus are vulnerable to habitat fragmentation (PCR Services Corporation, 2012b). An indicator species is generally defined as any biological species that defines a trait or characteristic of the environment.

A wildlife corridor identified in Exhibit II-3 of the F/TSP and **Figure 3.3-2** connects the Cleveland National Forest and Limestone-Whiting Wilderness Park and passes through the westernmost portion of the project site. Because this wildlife corridor was mapped on a broad scale, the edges of the corridor alignment were field-verified and delineated based on more detailed mapping of the habitat on-site.

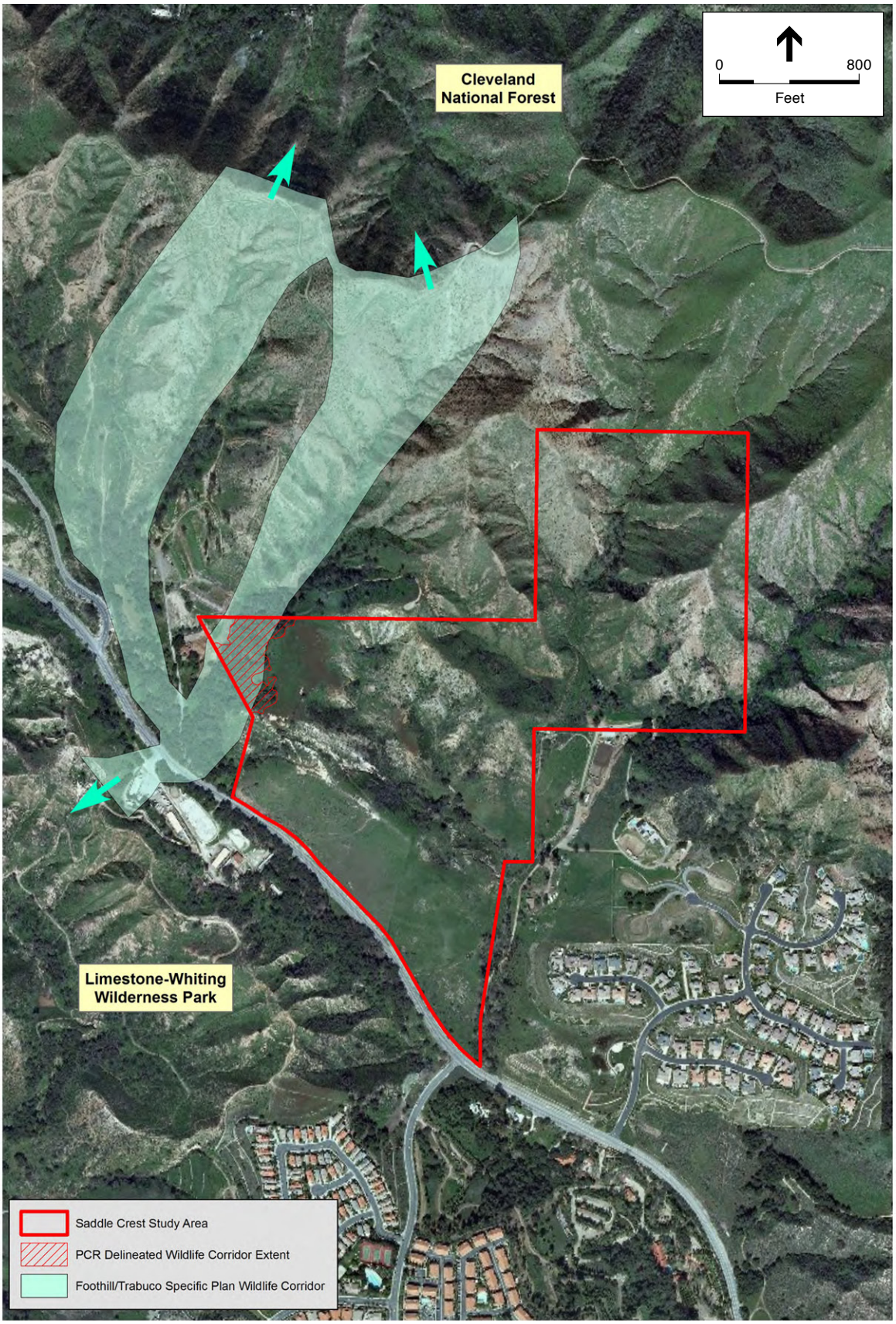
This wildlife corridor follows a drainage channel and may be utilized as a preferred travel route, since it provides a water source and dense canopy cover of coast live oak woodland, which provides added habitat value for wildlife. This wildlife corridor was also identified as the "Equestrian Corridor" by Paul Beier and Reginald Barrett and has been used by radio-tagged mountain lions on several occasions.

Based on an analysis of topography, vegetative cover, the presence of water sources, and field inspections, this assessment concurs with the findings of the F/TSP that the wildlife corridor identified along the westernmost portion of the project site has the greatest habitat value for wildlife movement. There are also additional areas of concentrated use that represent potential corridors, which consist of drainages generally oriented in a north-south direction providing access from lower elevations in the project site to the Santiago Truck Trail along the prominent east-west trending ridgeline just north of the project site. As with the corridor identified in the F/TSP, these travel routes provide the topography, vegetative cover, and seasonal water resources to foster wildlife movement.

Although there are additional areas of concentrated use within the project site that could represent potential corridors, they either are not as densely vegetated or not oriented in a direction in which regional wildlife movement is likely to take place and are somewhat constrained by surrounding disturbance or development, particularly in the southern portion of the project site where native vegetative cover has been removed by extensive grazing. Therefore, although other wildlife movement undoubtedly occurs elsewhere within the project site, it is not expected to be as concentrated or well-defined. Instead, a random movement pattern is expected to exist, which is not critical to maintaining regional habitat linkages.

Wildlife corridors connect protected open space areas and would reduce the risk of local extinction by providing a passage for wildlife movement into and out of a core habitat area. The corridor identified within the project site is especially important for maintaining the connection between the Cleveland National Forest and Limestone-Whiting Wilderness Park to prevent isolation of those mountain lions which utilize Limestone-Whiting Wilderness Park by increased urbanization from surrounding developments and roads (PCR Services Corporation, 2012b).

The project site is likely to function for both local and regional wildlife movement. However, habitat within the westernmost portion of the project site was identified as a wildlife corridor for having the greatest habitat value for wildlife movement, as well as providing a connection between the Cleveland National Forest and Limestone-Whiting Wilderness Park.



SOURCE: Aerial Express, 2009; Foothill/Trabuco Specific Plan, 1991; PCR Services Corporation, 2012.

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Figure 3.3-2
Wildlife Movement Corridor

Sensitive Natural Communities

Sensitive natural communities are those which are considered sensitive due to their decline in the region and/or their ability to support special-status plant and/or wildlife species. Two plant communities identified within the project site – white sage scrub and needlegrass grassland – are considered high inventory priority communities by CDFG (CNDDB, 2011). The project site contains 0.8 acre of white sage scrub and 4.1 acres of needlegrass grassland. The project site also supports 5.9 acres of CSS (consisting of 3.8 acres of sagebrush scrub, 0.2 acre of sagebrush scrub/southern mixed chaparral, and 1.9 acres of sagebrush scrub/ruderal). CSS is identified as the focal community for conservation in the NCCP/HCP in order to mitigate impacts to CSS habitat and associated species on a programmatic, sub regional level.

The F/TSP contains policies relating to the preservation of trees in the Trabuco Canyon area of Orange County, and affords specific protection to Oak Woodlands. The project site contains both scattered individual oak trees and more concentrated stands along or within the on-site drainage network.

Foothill/Trabuco Specific Plan

As discussed above, the project site is located within the F/TSP, which has identified significant wildlife corridors, oak woodlands, and streambeds in the area. A wildlife corridor, jurisdictional streambeds, and oak woodlands were delineated in the project site as part of this assessment and are identified as significant biological resources by the F/TSP.

Special-Status Species

Special-status species are defined as those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status species include:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act or the California Endangered Species Act;
- Species that meet the definitions of rare or endangered under *CEQA Guidelines* Section 15380.
- Plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (List 1A, 1B and 2 plants) in California;
- Plants listed by the CNPS as plants in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants);

- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.);
- Species covered under an adopted NCCP/HCP;
- Species considered “sensitive” by USFS;
- Wildlife designated by CDFG as species of special concern;
- Wildlife "fully protected" in California (CDFG Code Sections 3511, 4700, and 5050); and
- Wildlife protected by the MBTA.

Note that the CDFG refers to the following categories of special status species as "sensitive species: "*threatened or endangered species, fully protected species, and wildlife designated by CDFG as species of special concern. The USFS Manual (2670.15) defines "sensitive species" as "those plant and animal species identified by a Regional Forester for which population viability is a concern as evidenced by significant current or predicted downward trend in numbers or density*" and..."*habitat capability that would reduce a species existing distribution*."

The *Biological Resources Assessment* (PCR Services Corporation, 2012b) provides a comprehensive list of the special-status plant and wildlife species that have been documented from, or have suitable habitat in the project site (see Appendix D.1). This list was compared with lists obtained from the CNDDB, CNPS Online Inventory (CNPS, 2011), and the USFWS (2011). Of the special-status plants and animals, only the following species were observed or determined to be present on the project site: coastal California gnatcatcher, foothill mariposa lily, Catalina mariposa lily, and chaparral nolina (PCR Services Corporation, 2012b). These species are described in detail in **Table 3.3-1**. Special-status plant species that have been recorded in the region, but do not have the potential to occur based on such factors as absence of preferred habitat type including vegetation and soils, known elevation range, or known distribution are listed in **Table 3.3-2**.

Special-Status Plant Species

Special-status plants include those listed, proposed for listing, or candidates for listing, by the USFWS and CDFG as trustee agencies, and species considered sensitive by the CNPS (Lists 1A, 1B, 2, 3 and 4), species covered under the NCCP/HCP, and species considered “sensitive” by the USFS. A number of special-status plant species were reported in the CNDDB from the El Toro and Santiago Peak quadrangles and the vicinity. Three special-status species, the Catalina mariposa lily (*Calochortus catalinae*), foothill mariposa lily (*Calochortus weedii* var. *intermedius*), and chaparral nolina (*Nolina cismontana*), were observed within the project site. While none of these plant species are listed or proposed for listing as threatened or endangered or are a candidate for listing under the federal Endangered Species Act or the California Endangered Species Act, they meet one or more of the special status criteria set forth above. Accounts for these species, including the basis for classifying them as special-status plants, are included below in Table 3.3-1.

TABLE 3.3-1 SPECIAL-STATUS PLANT SPECIES OBSERVED ON THE PROJECT SITE

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Angiosperms (Monocotyledons)									
Liliaceae	Lily Family								
Calochortus catalinae	Catalina mariposa lily [a]	(Feb.) Mar.–Jun.	None	None	4.2	IN	Openings in chaparral, valley and foothill grassland, cismontane woodland; heavy soils. Elevations from 15 to 700 m.	All coastal Cos. south of San Luis Obispo.	OB
Calochortus weedii var. *intermedius*	foothill mariposa lily [b]	May–Jul.	None	None	1B.2	IN / CC / USFS	Chaparral, coastal scrub, valley and foothill grasslands. Elevations from 105 to 855 m.	Los Angeles, Orange, and Riverside Cos.	OB
Nolina cismontana	chaparral nolina [c]	May–Jul.	None	None	1B.2	USFS	Chaparral, coastal sage scrub, sandstone or gabbro. Elevations from 140 to 1,275 m.	Ventura, Orange, and San Diego Cos.	OB

OB= observed

[a] Catalina mariposa lily was observed on the Saddle Crest property. This species was concentrated within three locations and approximately 100 individuals were observed.

[b] Approximately 200 individuals were observed within the proposed development envelope on the Saddle Crest property. The County of Orange, Central and Coastal Subregion NCCP/HCP requires a mitigation plan be written for impacts to more than 20 individuals of this species.

[c] Approximately 300 individuals were observed within the proposed development envelope of the Saddle Crest property on a southwest facing slope.

California Native Plant Society (CNPS)

List 1A Presumed extinct in California.
List 1B Rare, threatened, or endangered throughout their range.
List 2 Rare, threatened, or endangered in California, but more common in other states.
List 3 Plant species for which additional information is needed before rarity can be determined.
List 4 Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

New CNPS Threat Code extensions and their meanings:

1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
2 Fairly endangered in California (20-80% occurrences threatened)
3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Natural Community Conservation Planning (NCCP)

IN Identified NCCP Species – Covered Species
IN/CC Identified NCCP Species – Conditionally Covered Species
IN/DP Identified NCCP Species – Receives regulatory coverage under the NCCP at the Dana Point Headlands only
TN Target NCCP Species – Covered Species

U.S. Forest Service, Cleveland National Forest

USFS Cleveland National Forest Sensitive Species

SOURCE: PCR Services Corporation, 2012b.

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

NON-VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP/ USFS	Preferred Habitat	Distribution	Occurrence On-site
BRYOPHYTES									
Pottiaceae	**Moss Family**								
Tortula californica	California screw-moss	N/A	None	None	1B.2	None	Chenopod scrub and valley and foothill grassland in sandy soil. Elevations from 10 to 1,460 m.	Kern, Monterey, Modoc, Riverside, and Santa Barbara Cos., California; Santa Rosa Island.	NE

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
GYMNOSPERMS									
Cupressaceae	**Cypress Family**								
Hesperocyparis forbesii	Tecate cypress	N/A	None	None	1B.1	IN/ USFS	Chaparral, closed cone coniferous forest. Elevations from 255 to 1,500 m.	Orange and San Diego Cos., Baja, California.	NE
ANGIOSPERMS (DICOTYLEDONS)									
Asteraceae	**Sunflower Family**								
Ambrosia pumila	San Diego ambrosia	Apr.-Oct.	None	None	1B.1	None	Chaparral, coastal scrub, valley and foothill grassland, and vernal pools, often in disturbed and alkaline areas. Elevations from 20 to 415 m.	Riverside and San Diego Cos.; Baja, California.	NE
Baccharis malibuensis	Malibu baccharis	Aug.	None	None	1B.1	None	Chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevations from 150 to 305 m.	Los Angeles and Orange Cos.	NE
Centromadia parryi ssp. *australis*	southern tarplant	May-Nov.	None	None	1B.1	None	Marshes and swamps, valley and foothill grassland, and vernal pools. Elevations from zero to 427 m.	Los Angeles, San Diego, Orange, and Ventura Cos., Baja California.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Centromadia pungens ssp. *laevis*	smooth tarplant	Apr.-Sept.	None	None	1B.1	None	Chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland on alkaline soil. Elevations from zero to 640 m.	Riverside, San Bernardino, and San Diego Cos.	NE
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	Jan.-Aug.	None	None	1B.1	None	Coastal bluff scrub and coastal dunes. Elevations from 3 to 100 m.	Los Angeles, Orange, San Diego, and Ventura Cos.; Baja, California.	NE
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	Aug.-Oct.	None	None	1A	None	Marshes and swamps (coastal salt and freshwater). Elevations from 10 to 1,675 m.	Los Angeles, Orange, and San Bernardino Cos. CA.	NE
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Apr.-Nov.	None	None	1B.2	None	Chaparral and coastal scrub, often in disturbed, sandy areas. Elevations from 10 to 135 m.	Orange and San Diego Cos.; Channel Islands; and Baja, California.	NE
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Feb.-Jun.	None	None	1B.1	None	Marshes and swamps, playas, and vernal pools. Elevations from one to 1,220 m.	Colusa, Kern, Los Angeles, Merced, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, Tulare, and Ventura Cos.; Channel Islands; Baja, California.	NE
Pentachaeta aurea ssp. *allenii*	Allen's pentachaeta	Mar.-Jun.	None	None	1B.1	None	Coastal scrub (openings) and valley and foothill grassland. Elevations from 75 to 520 m.	Orange County.	NE
Pseudognaphalium leucocephalum	white rabbit-tobacco	(Jul.) Aug.-Nov. (Dec.)	None	None	2.2	None	Chaparral, cismontane woodland, coastal scrub, riparian woodland, sandy, gravelly. On sandy terraces in alluvial areas. Elevations from zero to 2,100 m.	Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, Ventura Cos; Baja, California.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Senecio aphanactis	chaparral ragwort	Jan.-Apr.	None	None	2.2	None	Chaparral, cismontane woodland, and coastal scrub, sometimes in alkaline areas. Elevations from 15 to 800 m.	Throughout the western portion of central and southern California; Channel Islands; and Baja, California.	NE
Symphyotrichum defoliatum	San Bernardino aster	Jul.-Nov.	None	None	1B.2	None	Marshes and swamps and valley and foothill grassland in vernally mesic areas near ditches, streams, and springs. Elevations from two to 2,040 m.	Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and San Luis Obispo Cos.	NE
Verbesina dissita	big-leaved crownbeard	Apr.-Jul.	None	None	1B.1	None	Chaparral (maritime) and coastal scrub. Elevations from 45 to 205 m.	Orange County, and Baja, California.	NE
Viguiera purisimae	La Purisima viguiera	Apr.-Sep.	None	None	2.3	None	Coastal bluff scrub and chaparral. Elevations from 365 to 425 m.	San Diego County, and Baja, California.	NE
Boraginaceae	**Borage Family**								
Harpogonella palmeri	Palmer's grapplinghook	Mar.-May	None	None	4.2	IN/DP	Chaparral, coastal scrub, and valley and foothill grassland on clay soils. Elevations from 20 to 955 m.	Los Angeles, Orange, Riverside, and San Diego Cos.; Channel Islands; AZ; Baja California; Sonora, Mexico.	NE
Brassicaceae	**Mustard Family**								
Caulanthus simulans	Payson's jewel-flower	(Feb) Mar.-May (Jun.)	None	None	4.2	USFS	Chaparral and coastal scrub on sandy, granitic soil. Elevations from 90 to 2,200 m.	Riverside and San Diego Cos.	NE
Lepidium virginicum var. *robinsonii*	Robinson's peppergrass	Jan.-Jul.	None	None	1B.2	None	Chaparral, coastal scrub. Elevations from 1 to 885 m.	San Diego, Orange, SE Los Angeles, SW San Bernardino, and western Riverside Cos.	NE
Chenopodiaceae	**Goosefoot Family**								

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Aphanisma blitoides	aphanisma	Mar.-Jun.	None	None	1B.2	None	Coastal bluff scrub, coastal dunes, and coastal scrub on sandy soils. Elevations from one to 305 m.	Santa Barbara, Ventura, Los Angeles, Orange, San Diego Cos.; Baja California.	NE
Atriplex coulteri	Coulter's saltbush	Mar.-Oct.	None	None	1B.2	None	Coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland on alkaline or clay soils. Elevations from three to 460 m.	Coastal southern California; Channel Islands; Baja, California.	NE
Atriplex pacifica	south coast saltscale	Mar.-Oct.	None	None	1B.2	None	Coastal bluff scrub, coastal dunes, coastal scrub, playas. Elevations from zero to 140 m.	Coastal southern California; Channel Islands; Baja, California; and Sonora Mexico.	NE
Atriplex parishii	Parish's brittlescale	Jun.-Oct.	None	None	1B.1	None	Chenopod scrub, playas, and vernal pools on alkaline soils. Elevations from 25 to 1,900 m.	Los Angeles, Orange, Riverside, San Bernardino, and San Diego Cos., CA; Baja, California.	NE
Atriplex serenana var. *davidsonii*	Davidson's saltscale	Apr.-Oct.	None	None	1B.2	None	Coastal bluff scrub and coastal scrub on alkaline soils. Elevations from 10 to 200 m.	Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, and Ventura Cos.; Channel Islands; Baja, California.	NE
Suaeda esteroa	estuary seablite	May-Oct.	None	None	1B.2	None	Marshes and swamps (coastal salt). Elevations from zero to 5 m.	Los Angeles, Orange, Santa Barbara, San Diego, and Ventura Cos.; Baja, California.	NE
Convovulaceae	**Morning Glory Family**								
Dichondra occidentalis	western dichondra	(Jan.) Mar.-Jul.	None	None	4.2	IN/DP	Chaparral, coastal scrub, valley and foothill grassland. Elevations from 50 to 500 m.	Santa Barbara, Ventura, and Orange Cos; channel Islands; and Baja, California.	NE
Crassulaceae	**Stonecrop Family**								

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Dudleya cymosa ssp. *ovatifolia*	Santa Monica Mountains dudleya	Mar.-Jun.	FT	None	1B.2	IN/ USFS	Chaparral, coastal scrub, volcanic, rocky soils. Elevations from 150 to 1,675 m.	Orange and Los Angeles Cos.	NE
Dudleya multicaulis	many-stemmed dudleya	Apr.-Jul.	None	None	1B.2	None/ USFS	Coastal scrub, chaparral, valley and foothill grassland; heavy clay soils or rock outcrops. Elevations from 15 to 790 m.	Los Angeles Co. to San Onofre Mt. in San Diego Co.	NE
Dudleya stolonifera	Laguna Beach dudleya	May-Jul.	FT	ST	1B.1	IN	Coastal scrub, cismontane woodland, chaparral, and valley and foothill grassland. Elevations from 10 to 260 m.	Orange Co.	NE
Dudleya viscida	sticky dudleya	May-Jun.	None	None	1B.2	USFS	Coastal bluff scrub, chaparral, coastal scrub , rocky. Elevations from 10 to 550m.	Orange, Riverside, and San Diego Cos.	NE
Ericaceae	**Heath Family**								
Arctostaphylos rainbowensis	rainbow manzanita	Dec.-Mar.	None	None	1B.1	None	Chaparral. Elevations from 225 to 670 m.	Riverside and San Diego Cos.	NE
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Apr.-Jun.	None	None	1B.2	None	Chaparral and cismontane woodland . Elevations from 30 to 550 m.	Orange, Riverside, and San Diego Cos.; Baja, California.	NE
Euphorbiaceae	**Spurge Family**								
Euphorbia misera	cliff spurge	Dec.-Aug.	None	None	2.2	IN/DP	Coastal bluff scrub, coastal scrub, and Mojavean desert scrub on rocky soil. Elevations from 10 to 500 m.	Los Angeles, Orange, Riverside, Santa Barbara, and San Diego Cos.; Channel Islands; Baja, California.	NE
Tetracoccus dioicus	Parry's tetracoccus	Apr.-May	None	None	1B.2	USFS	Chaparral and coastal sage scrub. Elevations from 165 to 1,000 m.	Orange, Riverside, and San Diego Cos.; Baja, California.	NE
Fabaceae	**Legume Family**								

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Astragalus brauntonii	Braunton's milk-vetch	Jan.-Aug.	FE	None	1B.1	USFS	Sage scrub, chaparral, valley and foothill grass-land, closed cone coniferous forest; carbonate soils, recent burns and disturbed areas. Elevations from 4 to 640 m.	Ventura, Los Angeles and Orange Cos.	NE
Fagaceae	**Oak Family**								
Quercus dumosa	Nuttall's scrub oak	Feb.-Apr.	None	None	1B.1	IN	Sage scrub, chaparral; sandy clay loam or sandstone. Elevations from 15 to 400 m.	Orange, San Bernardino, and San Diego Cos., Baja, California.	NE
Geraniaceae	**Geranium Family**								
California macrophylla	round-leaved filaree	Mar.-May	None	None	1B.1	None	Cismontane woodland and valley and foothill grassland on clay soils.	Throughout the western portion of California; Channel Islands; Baja California; OR.	NE
Hydrophyllaceae	**Waterleaf Family**								
Nama stenocarpum	mud nama	Jan.-Jul.	None	None	2.2	None	Marshes and swamps, lake margins, and riverbanks. Elevations from 5 to 500 m.	Imperial, Los Angeles, Orange, Riverside, and San Diego Cos.; San Clemente Island; AZ; and Baja California.	NE
Phacelia keckii	Santiago Peak phacelia	May-June	None	None	1B.3	USFS	Chaparral, closed-cone coniferous forests. Elevations from 545 to 1,600 m.	Orange and Riverside Cos.	NE
Lamiaceae	**Mint Family**								
Lepechinia cardiophylla	heart-leaved pitcher sage	Apr.-Jul.	None	None	1B.2	IN/ USFS	Open areas (esp. slopes) in chaparral, sage scrub, valley and foothill grasslands; vernal pools, topographic depressions; heavy clay soils. Elevations from 520 to 1,370 m.	Orange, Riverside, and San Diego Cos.; Baja, California.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	Jun.-Aug.	None	None	1B.2	USFS	Chaparral, cismontane woodland. Elevations from 300 to 1,575 m.	Orange and San Diego Cos.; Baja, California.	NE
Monardella macrantha ssp. *hallii*	Hall's monardella	Jun.-Oct.	None	None	1B.3	None	Lower montane coniferous forest, valley and foothill grassland, broadleaf upland forest, chaparral, cismontane woodland. Elevations from 730 to 2195 m.	Orange, Riverside, San Bernardino, and San Diego Cos.	NE
Satureja chandleri	San Miguel savory	Mar.-Jul.	None	None	1B.2	USFS	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Rocky, gabbroic, or metavolcanic. Elevations from 120 to 1075 m.	Orange, Riverside, and San Diego Cos.; Baja, California.	NE
Malvaceae	**Mallow Family**								
Sidalcea neomexicana	salt spring checkerbloom	Mar.-Jun.	None	None	2.2	None	Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas on alkaline, mesic soils. Elevations from 15 to 1530 m.	Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Cos.; AZ; Baja, California; NM; NV; UT; and Sonora, Mexico.	NE
Nyctaginaceae	**Four O'Clock Family**								
Abronia villosa var. *aurita*	chaparral sand-verbena	Jan.-Sep.	None	None	1B.1	None	Chaparral, coastal scrub, and desert dunes on sandy soils. Elevations between 80 and 1600 m.	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Cos.; AZ; Baja, California.	NE
Onagraceae	**Evening Primrose Family**								

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Camissonia lewisii	Lewis' evening primrose	Mar.-May (Jun.)	None	None	3	None	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland on sandy or clay soils. Elevations from zero to 300 m.	Los Angeles, Orange, San Diego, Baja, California.	NE
Papaveraceae	**Poppy Family**								
Romneya coulteri	Coulter's matilija poppy	Mar-Jul.	None	None	4.2	IN	Dry washes and canyons in sage scrub and chaparral. Elevations from 20 to 1,200 m.	Santa Ana Mountains to San Diego Co.	NE
Polemoniaceae	**Phox Family**								
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	May-Sep.	FE	SE	1B.1	None	Chaparral and coastal scrub in alluvial fans on sandy or gravelly soils. Elevations from 91 to 610 m.	Orange, Riverside, and San Bernardino Cos.	NE
Polygonaceae	**Buckwheat Family**								
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	Apr.-Jul.	FC	SE	1B.1	None	Coastal scrub and valley and foothill grassland. Elevations from 150 to 1,220 m.	Los Angeles, Orange, and Ventura Cos.	NE
Chorizanthe parryi var. *parryi*	Parry's spineflower	Apr.-Jun.	NONE	NONE	1B.1	None	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland on sandy or rocky soils in openings. Elevations from 275 to 1,220 m.	Los Angeles, Riverside, and San Bernardino Cos.	NE
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	Apr.-Jul.	None	None	1B.2	USFS	Variety of so. Cal. plant communities, including sage scrub; gabbroic clay soils. Elevations from 30 to 1,530 m.	Riverside and San Diego Cos.; Baja, California.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Chorizanthe xanti var. *leucotheca*	white-bracted spineflower	Apr.-Jun.	None	None	1B.2	None	Mojavean desert scrub and pinyon and juniper woodland on sandy or gravelly soils. Elevations from 300 to 1,200 m.	Los Angeles, Riverside, and San Bernardino Cos.	NE
Dodecahema leptoceras	slender-horned spineflower	Apr.-Jun.	FE	SE	1B.1	USFS	Chaparral, cismontane woodland, and coastal scrub in sandy soils and alluvial fans. Elevations from 200 to 760 m.	Los Angeles, Riverside, and San Bernardino Cos.	NE
Nemacaulis denudata var. denudata	Coast woolly-heads	Apr.-Sep.	None	None	1B.2	None	Coastal dunes. Elevations from zero to 100 m.	Los Angeles, Orange, and San Diego Cos.; CA; Santa Catalina Island; Baja, California.	NE
Rosaceae	**Rose Family**								
Horkelia cuneata ssp. *puberula*	mesa horkelia	Feb.-Jul. (Sep.)	None	None	1B.1	None	Chaparral, cismontane woodland, coast scrub: sandy or gravelly. Elevations from 70 to 810 m.	Los Angeles and Orange Cos; may be extirpated from Riverside and San Diego Cos.	NE
Scrophulariaceae	**Figwort Family**								
Penstemon californicus	California beardtongue	May-Jun. (Aug.)	None	None	1B.2	USFS	Chaparral, lower montane coniferous forest, and pinyon and juniper woodland on sandy soils. Elevations from 1,170 to 2,300 m.	Orange and Riverside Cos.; Baja, California.	NE
ANGIOSPERMS (MONOCOTYLEDONS)									
Liliaceae	**Lily Family**								
Allium munzii	Munz's onion	Mar.-May	FT	SE	1B.1	USFS	Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland on mesic, clay soils. Elevations from 297 to 1,070 m.	Riverside County.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Brodiaea filifolia	thread-leaved brodiaea	Mar.-Jun.	FT	SE	1B.1	USFS	Sage scrub, valley and foothill grassland, cismontane woodland; vernal pools (clay soils). Elevations from 25 to 1,219 m.	Los Angeles, Orange, Riverside, San Bernardino, San Diego Cos.	NE
Brodiaea orcuttii	Orcutt's brodiaea	May-Jul.	None	None	1B.1	USFS	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools on mesic, clay, and sometimes serpentine soil. Elevations from 30 to 1,692 m.	Riverside and San Diego Cos.; Baja, California.	NE
Brodiaea santarosae	Santa Rosa basalt brodiaea	May-Jun.	None	None	3	None	Valley and foothill grassland on basaltic soils. Elevations from 580 to 1,045 m.	Riverside and San Diego Cos.	NE
Calochortus plummerae	Plummer's mariposa lily	May-Jul.	None	None	1B.2	None	Variety of so. Cal. plant communities, including sage scrub, valley and foothill grassland, yellow pine forest; dry, rocky or sandy sites, granitic or alluvial soil. Elevations from 100 to 1,700 m.	Ventura, Los Angeles, Riverside, and San Bernardino Cos.	NE
Lilium parryi	lemon lily	Jul.-Aug.	None	None	1B.2	USFS	Lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest. Elevations from 1,220 to 2,745 m.	Los Angeles, Riverside, San Bernardino, and San Diego Cos.; AZ; and Sonora, Mexico.	NE
Poaceae	**Grass Family**								
Hordeum intercedens	vernal barley	Mar-Jun	None	None	3.2	None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools. Elevations from 5 to 1,000 m.	All coastal Cos. south of San Luis Obispo, San Benito, Fresno.	NE

TABLE 3.3-2 SPECIAL-STATUS PLANT SPECIES NOT EXPECTED TO OCCUR

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	NCCP	Preferred Habitat	Distribution	Occurrence On-site
Imperata brevifolia	California satintail	Sep.-May	None	None	2.1	None	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps, and riparian scrub, often in alkali areas. Elevations from zero to 500 m.	Throughout California; AZ; Baja, California; NM, NV; TX; and UT.	NE

NE=not expected due to lack of suitable habitat or the negative results of focused surveys.
Key to Species Listing Status Codes

FE	Federally Listed as Endangered	SE	State Listed as Endangered	CSC	California Special Concern Species
FT	Federally Listed as Threatened	ST	State Listed as Threatened		
FPE	Federally Proposed as Endangered	SCE	State Candidate for Endangered		
FPT	Federally Proposed as Threatened	SCT	State Candidate for Threatened		
FPD	Federally Proposed for Delisting	SR	State Rare		
FC	Federal Candidate Species	SFP	State Fully Protected		

California Native Plant Society (CNPS)
List 1A: Presumed extinct in California.
List 1B: Rare, threatened, or endangered throughout their range.
List 2: Rare, threatened, or endangered in California, but more common in other states.
List 3: Plant species for which additional information is needed before rarity can be determined.
List 4: Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

New CNPS Threat Code extensions and their meanings:
1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
2 Fairly endangered in California (20-80% occurrences threatened)
3 Not very endangered in California (<20% of occurrences threatened or no current threats known)
Natural Community Conservation Planning (NCCP)
IN Identified NCCP Species – Covered Species
IN/CC Identified NCCP Species – Conditionally Covered Species
IN/DP Identified NCCP Species – Receives regulatory coverage under the NCCP at the Dana Point Headlands only
TN Target NCCP Species – Covered Species
U.S. Forest Service, Cleveland National Forest
USFS Cleveland National Forest Sensitive Species
Source: PCR Services Corporation, 2012b.

Catalina mariposa lily (*Calochortus catalinae*) was observed within three locations along the southwestern portion of the project site. Catalina mariposa lily is a CNPS List 4.2 species [i.e., species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat; fairly endangered in California (20 to 80 percent occurrences threatened)] and is identified as a covered species under the NCCP/HCP. Approximately 100 individuals were observed.

Foothill mariposa lily (*Calochortus weedii* var. *intermedius*) was observed in several locations scattered around the central and eastern portions of the project site. Foothill mariposa lily is a CNPS List 1B.2 species [i.e., rare, threatened, or endangered throughout their range; fairly endangered in California (20 to 80 percent occurrences threatened)] and is conditionally covered under the NCCP/HCP. This species is also a USFS sensitive species (Cleveland National Forest). Approximately 200 individuals were observed within the proposed area of disturbance (within the limits of grading and fuel modification zones of the proposed project and non-clustered scenario). Because this is a conditionally covered species, the NCCP/HCP requires that a mitigation plan be written for impacts to more than 20 individuals of this species.

Chaparral nolina (*Nolina cismontana*) was observed on a southwest-facing slope within the central portion of the project site. Chaparral nolina is a CNPS List 1B.2 species [i.e., rare, threatened, or endangered throughout their range; fairly endangered in California (20 to 80 percent occurrences threatened)] and USFS sensitive species (Cleveland National Forest). Approximately 300 individuals were observed within the project site's proposed area of disturbance.

Special-Status Wildlife Species

Special-status wildlife species include those species listed or proposed for listing as endangered or threatened under federal Endangered Species Act or California Endangered Species Act, candidates for listing by USFWS or CDFG, CDFG species of special concern, species covered under the NCCP/HCP, wildlife that is fully protected in California (CDFG Code Sections 3511, 4700, and 5050), wildlife protected by the MBTA, and species considered "sensitive" by the USFS. A CNDDB search conducted for the project site found a number of special-status species recorded in the vicinity of the site. However, a number of the special-status species recorded in the vicinity of the site are not expected to occur within the project site due to lack of suitable habitat or because the project site is outside the known distribution for this species. A discussion of each special-status wildlife species potentially present within the project site is presented below in **Table 3.3-3**. Special-status wildlife species that have been recorded in the region, but do not have the potential to occur based on such factors as absence of preferred habitat type including vegetation and soils, known elevation range, or known distribution are listed in **Table 3.3-4**.

TABLE 3.3-3
SPECIAL-STATUS WILDLIFE SPECIES

Vertebrates							
Scientific Name	**Common Name**	**Federal**	**State**	**NCCP / Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Reptiles							
Phryonosomatidae	Iguanid Lizards						
Phrynosoma coronatum (blainvillii)	coast (San Diego) horned lizard	None	SSC	IN/USFS	Valley-foothill hardwood, conifer, and riparian habitats, pine cypress, juniper and annual grassland habitats below 6,000 ft., open country, especially sandy areas, washes, flood plains, and windblown deposits.	Coastal ranges from south Ventura, Los Angeles, San Bernardino Cos., Orange, western Riverside, and western San Diego Cos.	P
Scincidae	Skinks						
Eumeces skiltonainus interparietalis	Coronado skink			IN	Grassland, woodland, and forest habitats with rocky patches near streams, also common on dry slopes.	Southern Orange, San Diego Cos., northern Baja, California.	P
Teiidae	Whiptails and Relatives						
Aspidoscelis hyperythrus	orange-throated whiptail	None	SSC	TN	Gently sloping hillsides, ridges, and valleys supporting open coastal sage scrub, open chaparral, or sparse grasslands.	Extreme southern Los Angeles Co., SW San Bernardino Co., Orange, Riverside, and San Diego Cos. west of the crest of the peninsular Ranges, and Baja, California.	P
Anniellidae	Legless Lizards						
Anniella pulchra	silvery legless lizard	None	SSC	None/USFS	Several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub habitats.	Coastal ranges from San Francisco Bay into Baja, California.	P
Boidae	Boas						
Charina trivirgata roseofusca	coastal rosy boa	None	None	IN/USFS	Desert and rocky areas in chaparral covered hillsides and canyons.	Throughout Southern California, south of Los Angeles Co. in coastal ranges to northern Baja, California.	P

TABLE 3.3-3
SPECIAL-STATUS WILDLIFE SPECIES

Vertebrates

Scientific Name	Common Name	Federal	State	NCCP / Other	Preferred Habitat	Distribution	Occurrence On-site
Colubridae	Colubrid Snakes						
Diadophis punctatus modestus	San Bernardino ringnecked snake	None	None	IN/USFS	Open, relatively rocky areas within valley foothill, mixed chaparral, and annual grass habitats.	San Bernardino, Riverside, and Orange Cos.	P
Diadophis punctatus similus	San Diego ring-necked snake	None	None	None/USFS	Prefers moist habitats including woodland, forest, grassland, chaparral, farms, and gardens. Open, relatively rocky areas within valley-foothill, mixed chaparral, and annual grass habitats. In arid parts of the southwest, it is restricted to mountains, springs, and watercourses where it may descend, in desert areas, to around 730 m.	San Bernardino, Riverside, and Orange Cos.	P
Lampropeltis zonata pulchra	San Diego mountain kingsnake	None	SSC	None/USFS	Moist woods, coniferous forests, woodland, and chaparral.	Southern WA to northern Baja, California. Mountains of coastal and interior California except deserts.	P
Salvadora hexalepis virgultea	coast patch-nosed snake	None	SSC	None	Coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Point Conception south through Baja, California.	P
Viperidae	**Vipers**						
Crotalus ruber ruber	northern red-diamond rattlesnake	None	SSC	IN	Chaparral, woodland, and arid desert habitats in rocky areas with dense vegetation.	San Bernardino Co. to tip of Baja, California.	P

TABLE 3.3-3
SPECIAL-STATUS WILDLIFE SPECIES

Vertebrates							
Scientific Name	**Common Name**	**Federal**	**State**	**NCCP / Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Birds							
Accipitridae	Hawks, Kites, Harriers, and Eagles						
Aquila chrysaetos (nesting and wintering)	golden eagle	None	SFP	IN/CC	Mountains, deserts, and open country; prefer to forage over grasslands, deserts, savannahs and early successional stages of forest and shrub habitats. Nesting sites are usually located in secluded cliffs with overhanging ledges or in large trees. Nests on cliffs of all heights and in large trees in open areas. Alternative nest sites are maintained, and old nests are reused. Builds large platform nest, often 3 meters (10 feet) across and 1 meter (3 feet) high, of sticks, twigs, and greenery. Rugged, open habitats with canyons and escarpments used most frequently for nesting.	Throughout California with the exception of the center of the central valley.	P,F
Circus cyaneus (nesting)	northern harrier	None	SSC	IN	Coastal salt marshes, freshwater marshes, grasslands, and agricultural fields; occasionally forages over open desert and brushlands.	Alaska, Canada, to southern U.S.	P,F
Falconidae	Falcons						
Falco peregrinus anatum (nesting)	American peregrine falcon	Delisted	Delisted, SFP	IN	Open country, cliffs (mountains to coasts).	Occurs uncommonly throughout California with the exception of the SE deserts.	P,F
Strigidae	Owls						
Asio otus (nesting)	long-eared owl	None	SSC	None	Dense riparian areas, thickets, woodlands, and forest.	Winter visitor in the Mojave Desert, rare winter migrant along Southern California coastline.	P
Laniidae	Shrikes						

TABLE 3.3-3
SPECIAL-STATUS WILDLIFE SPECIES

Vertebrates							
Scientific Name	**Common Name**	**Federal**	**State**	**NCCP / Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Lanius ludovicianus	loggerhead shrike	None	SSC	None	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	Formerly a common resident throughout most of California, becoming increasingly scarce in many areas in recent years.	P
Troglodytidae	Wrens						
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren [a]	None	SSC	TN	Coastal sage scrub, vegetation with thickets of prickly pear or cholla cactus.	Southern Ventura Co., southward through Los Angeles, Orange, Riverside, San Bernardino, San Diego, and south to NW Baja, California.	P
Sylviidae	Gnatcatchers						
Polioptila californica californica	coastal California gnatcatcher [b]	FT	SSC	TN	Coastal sage scrub vegetation below 2,500 feet elevation in Riverside County and generally below 1,000 feet elevation along the coastal slope; generally avoids steep slopes and dense vegetation for nesting.	Southern Ventura Co., southward through Los Angeles, Orange, Riverside, San Bernardino Cos., and south through the coastal foothills of San Diego Co.	OB
Emberizidae	Sparrows, Buntings, Warblers, and Relatives						
Ammodramus savannarum	grasshopper sparrow	None	SSC	None	Dense grasses for foraging and nesting cover. Upland meadows, pastures, hayfields, and croplands.	Throughout the United States and Mexico.	P
Mammals							
Vespertilionidae	Evening Bats						
Antrozous pallidus	pallid bat	None	SSC	None/USFS	Nests in dry, rocky habitats/caves, crevices in rocks, arid habitats including deserts, chaparral, and scrublands.	Common in low elevations throughout California except for the high Sierra Nevada from Shasta to Kern Co. and the NW corner of the state.	P
Corynorhinus townsendii townsendii	Townsend's big-eared bat	None	SSC	None/USFS	Found in all but subalpine and alpine habitats.	Throughout California.	P

TABLE 3.3-3
SPECIAL-STATUS WILDLIFE SPECIES

Vertebrates

Scientific Name	Common Name	Federal	State	NCCP / Other	Preferred Habitat	Distribution	Occurrence On-site
Euderma maculatum	spotted bat	None	SSC	None	Arid deserts and grasslands through mixed conifer forests	Foothill, mountain, and desert regions of Southern California.	P
Lasiurus blossevillii	western red bat	None	SSC	None/USFS	Roosts primarily in trees, 2 to 40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges with trees interspersed with open areas for foraging.	Southern British Columbia in Canada, through much of the western United States, through Mexico and Central America, to Argentina and Chile in South America.	P
Molossidae	Free tailed Bats						
Eumops perotis californicus	western mastiff bat	None	SSC	None	Primarily arid lowlands, especially deserts. Open, semiarid to arid habitats including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.	Uncommon resident of lower elevations in SE San Joaquin Valley and Coastal Ranges from Monterey Co. southward through S CA from the coast eastward to the Colorado desert.	P
Leporidae	**Rabbits and Hares**						
Lepus californicus bennettii	San Diego black tailed jackrabbit	None	SSC	None	Open brushlands and scrub habitats between sea level and 4,000 feet elevation.	Coastal Southern California from Ventura Co. into Northern Baja, California.	P
Heteromyidae	Kangaroo Rats, Pocket Mice, and Kangaroo Mice						
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None	SSC	None	Sandy herbaceous areas, usually in association with rocks or coarse gravel, sagebrush, scrub, annual grassland, chaparral and desert scrubs.	Common resident in SW CA; arid coastal areas of Orange, San Bernardino, and Riverside Cos. extending south into Baja, California.	P
Cricetidae	Mice, Rats, and Voles						
Neotoma lepida intermedia	San Diego desert woodrat	None	SSC	IN	Chaparral, coastal sage scrub, and pinyon – juniper woodland.	Southern California.	P
Onychomys torridus ramona	southern grasshopper mouse	None	SSC	None	Low arid and semiscrub vegetation.	Coastal Southern California.	P

OB = observed; P = Species has the potential to occur on-site; NE = Species not expected to occur on-site; F = For raptor species: if present, would utilize the site for foraging; B = For raptor species: if present, would utilize the site for breeding

a This species has been observed in the vicinity of the project site (PCR Services Corporation, 2002).
b Focused breeding season surveys conducted in 1999 did not detect the presence of this species on-site. Protocol breeding season surveys were repeated on the project site in 2002 to determine the current status of the species on-site; however, no coastal California gnatcatchers were observed on the project site during 2002 surveys. During off-season surveys conducted in 2007, an observation of a single coastal California gnatcatcher was recorded on October 16, 2007, within a sagebrush scrub/ruderal community in the eastern portion of the study area. It should be noted that due to the timing of this observation outside of the breeding season, the poor suitability of the habitat where it was observed, and the affect that the 2007 Santiago fire had on suitable habitat, it is likely that this individual was a dispersing transient moving through the study area. No other coastal California gnatcatchers were observed during the 2007-2008 surveys. The study area is not within any critical habitat designated by the USFWS for the coastal California gnatcatcher; however, critical habitat for this species occurs across Santiago Canyon Road, approximately 75 feet south of the study area. Focused breeding season surveys for the coastal California gnatcatcher were conducted again in 2010; no coastal California gnatcatchers were detected on-site. For a more detailed discussion, refer to Appendix D.3.

Key to Species Listing Status Codes

FE	Federally Listed as Endangered	SE	State Listed as Endangered
FT	Federally Listed as Threatened	ST	State Listed as Threatened
FPE	Federally Proposed as Endangered	SCE	State Candidate for Endangered
FPT	Federally Proposed as Threatened	SCT	State Candidate for Threatened
FPD	Federally Proposed for Delisting	SR	State Rare
FC	Federal Candidate Species	SFP	State Fully Protected
		CSC	California Special Concern Species

Natural Community Conservation Planning (NCCP)

IN	Identified NCCP Species – Covered Species
IN/CC	Identified NCCP Species – Conditionally Covered Species
TN	Target NCCP Species – Covered Species

U.S. Forest Service, Cleveland National Forest

USFS	Cleveland National Forest Sensitive Species

SOURCE: PCR Services Corporation, 2012b.

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

INVERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
CRUSTACEA	**CRUSTACEANS**						
Anostraca	**Fairy Shrimp**						
Branchinecta sandiegonensis	San Diego fairy shrimp	FE	None	IN/CC	Vernal pools in areas of shallow depressions that have a clay hardpan soil layer that inhibits percolation.	Known populations in Santa Barbara and San Diego Cos. and NW Baja, California.	NE
Streptocephalus woottoni	Riverside fairy shrimp	FE	None	IN/CC	Vernal pools/swales; apparently prefers deeper pools through the warm weather of late Apr. and May.	Riverside, Orange and San Diego Cos. and N Baja, California.	NE
INSECTA	**GRASSHOPPERS, KATYDIDS, CRICKETS, BEETLES, FLIES, BUTTERFLIES, MOTHS**						
Lepidoptera	**Butterflies and Moths**						
Euphydryas editha quino	quino checkerspot butterfly	FE	None	IN/CC	Grassland and open areas in sage scrub, chaparral, and sparse native woodlands. Low levels of invasive, nonnative vegetation and soil with a cryptogamic crust. Associated with host plant species dwarf plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta*).	Orange, San Diego and western Riverside Cos. extending south into N Baja, California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
FISHES							
Cyprinidae	**Minnows and Carp**						
Gila orcuttii	arroyo chub	None	SSC	None/ USFS	Slow water sections of streams with mud or sand substrates; spawns in pools.	Larger rivers of Southern California; declining due to the introduction of non-native species and the degradation of urbanized streams.	NE
Eucyclogobius newberryi	tidewater goby	FE	SSC	None	Shallow lagoons, lower stream reaches where water is brackish to fresh and slow-moving or fairly still but not stagnant.	Del Norte County south to Del Mar, California.	NE
Rhinichthys osculus ssp. *3*	Santa Ana speckled dace	None	SSC	None/ USFS	Permanent flowing streams with summer water temperatures from 17 to 20^{o} C. Inhabit shallow cobble and gravel riffles.	Headwaters of the Santa Ana and San Gabriel Rivers.	NE
Catostomidae	**Suckers**						
Catostomus santaanae	Santa Ana sucker	FT	SSC	None/ USFS	Prefer sand-rubble-boulder bottoms, cool, clear water and algae. Streams of varying width and depth with appropriate substrate (mix of sand, gravel, cobble, and boulder).	Larger stream sections in headwaters of Los Angeles and San Gabriel Rivers. Lower portions of Santa Ana River. Throughout Santa Clara River.	NE
Salmonidae	**Trout and Salmon**						
Onchorhynchus mykiss irideus	southern steelhead – southern California ESU	FE	SSC	None	Tolerances to warmer water and more variable conditions.	Federal listing refers to populations from Santa Maria River south to the southern extent of its range in San Mateo Creek, San Diego Co.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
AMPHIBIANS							
Salamandridae	**Newts**						
Taricha torosa torosa	coast range newt	None	SSC	None	A variety of terrestrial habitats with ponds or slow streams nearby.	Coastal drainages from Mendocino Co. south to San Diego Co.	NE
Ranidae	**Frogs**						
Lithobates pipiens	northern leopard frog	None	SSC	None	Occur in or near quiet, permanent and semi-permanent water in many habitats.	Occurs along the Colorado River, and in irrigated portions of Imperial, Tulare and Kern Cos.	NE
Pelobatidae	**Spadefoot Toads**						
Spea hammondii	western spadefoot	None	SSC	IN	Prefer burrow sites within relatively open areas in lowland grasslands, chaparral, and pine-oak woodlands, areas of sandy or gravelly soil in alluvial fans, washes, and floodplains. Requires temporary pools for reproduction.	Coastal ranges from Point Conception, Santa Barbara Co., south to the Mexican border throughout Central Valley and adjacent foothills.	NE
Bufonidae	**True Toads**						
Bufo californicus	arroyo toad	FE	SSC	IN/CC	Washes and streams with sandy banks, willows, cottonwoods, or sycamores; riparian habitats of semiarid areas, small cobbly streambeds. Requires clear, standing water for reproduction.	Southern part of the Coast Range from northern San Luis Obispo Co. south to Baja, California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
REPTILES							
Emydidae	**Box and Water Turtles**						
Emmys marmorata pallida	southwestern pond turtle	None	SSC	None/ USFS	Ponds, marshes, rivers, streams, irrigation ditches.	San Francisco Bay south to Baja, California and west of the Sierra-Cascade crest.	NE
Colubridae	**Colubrid Snakes**						
Thamnophis hammondii	two-striped garter snake	None	SSC	None/ USFS	Found in or near permanent freshwater, often along streams with rocky beds and riparian growth.	Coastal CA from Salinas to NW Baja, California.	NE
BIRDS							
Laridae	**Gulls and Terns**						
Sternula antillarum browni	California least tern	FE	SE	None	Nests along the coast. Colonial breeder on bare or sparsely vegetated, flat substrates, sandy beaches, alkali flats, landfills, or paved areas.	San Francisco Bay south to northern Baja, California.	NE
Rallidae	**Rails and Gallinules**						
Laterallus jamaicensis coturniculus	California black rail	None	ST	None	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.	Imperial, Orange, Riverside, and San Bernardino Cos.; San Luis Obispo Co.; and Northern California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
Rallus longirostris levipes	light-footed clapper rail	FE	SE	None	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation, which it uses for nesting or escape cover.	Orange, San Diego, Santa Barbara, Ventura Cos.	NE
Accipitridae	**Hawks, Kites, Harriers, and Eagles**						
Haliaeetus leucocephalus	bald eagle	FD	SE	None	Found near water.	Throughout U.S. and Canada.	NE
Charadriidae	**Plovers and Relatives**						
Charadrius alexandrinus nivosus	western snowy plover	FT	SSC	None	Shores, peninsulas, offshore islands, bays, estuaries, and rivers.	United States' Pacific Coast in winter; summer in Great Basin desert areas of Nevada and surrounding States and the south-central United States.	NE
Strigidae	**Owls**						
Athene cunicularia (burrow sites)	burrowing owl	None	SSC	None	Dry grasslands, desert habitats, and open pinyon-juniper and ponderosa pine woodlands below 5,300 feet elevation. Prefers berms, ditches, and grasslands adjacent to rivers, agricultural, and scrub areas.	Year-round resident of lowlands of Southern California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
Cuculidae	**Cuckoos and Relatives**						
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FC	SE	None	Valley foothill and desert riparian habitats in scattered locations in California.	Along the South Fork of the Kern River, Kern Co.; along the Santa Ana River, Riverside Co.; and along the Amargosa River, Inyo and San Bernardino cos. Also may nest along San Luis Rey River, San Diego Co.	NE
Tyrannidae	**Tyrant Flycatchers**						
Empidonax traillii (nesting)	willow flycatcher	None	SE	None	Willows, alders, brushy swamps, swales.	Breed in North America but winter in Mexico, Central America, and N South America.	NE
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE	SE	IN/CC	Low elevational sites; riparian woodlands that contain water and low growing willow thickets. High elevational sites; large, flat, wet meadows that contain patches of willow trees.	Southern California, from the Santa Ynez River south.	NE
Vireonidae	**Vireos**						
Vireo bellii pusillus (nesting)	least Bell's vireo	FE	SE	IN/CC	Perennial and intermittent streams with low, dense riparian scrub and riparian woodland habitats below 2,000 feet elevation; nests primarily in willows and forages in the riparian and occasionally in adjoining upland habitats. Associated with willow, cottonwood, and mule fat.	A patchily distributed summer resident across Southern California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
Troglodytidae	**Wrens**						
Parulidae	**Wood-Warblers**						
Icteria virens (nesting)	yellow-breasted chat	None	SSC	None	Riparian woodlands with a thick understory.	Uncommon summer resident and migrant in coastal California and in foothills of the Sierra Nevada.	NE
Emberizidae	**Sparrows, Buntings, Warblers, and Relatives**						
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None	SE	None	Inhabits coastal salt marshes. Nests in *Salicornia* on and about margins of tidal flats.	Santa Barbara south through San Diego Co.	NE
Icteridae	**Blackbirds**						
Agelaius tricolor	tricolored blackbird	None	SSC	None	Marshes dominated by cattails or bulrushes; upland or agricultural areas; stands of blackberries, giant cane, tamarisk, and river-bottom trees like willow and cottonwood.	Throughout the Central Valley and some coastal regions of California.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
MAMMALS							
Phyllostomidae	**Leaf-nosed bats**						
Choereonycteris mexicana	Mexican long-tongued bat	None	SSC	None	Occurs in a variety of habitats, including thorn scrub, palo verde-saguaro desert, semidesert grassland, oak woodland and tropical deciduous forests. Although most frequently found in desert canyons, they have been observed in oak and ponderosa pine habitat.	Southern California (the San Diego area); southern Arizona; southwestern New Mexico; southern tip of Texas; northern Arizona; Las Vegas, Nevada. South to Honduras.	NE
Vespertilionidae	**Evening Bats**						
Lasiurus xanthinus	western yellow bat	None	SSC	None	Roosts in valley foothill riparian, desert riparian, desert wash, and palm oasis habitat. Roosts in trees, particularly palms. Forages over water and among trees.	Found in the extreme southwestern deserts of California, north to Los Angeles and Riverside counties, east to Arizona; its range extends south to Argentina and Uruguay.	NE
Molossidae	**Free-tailed Bats**						
Nyctinomops femorosaccus	pocketed free-tailed bat	None	SSC	None	Variety of arid areas in southern California; pin-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian. Rocky areas with high cliffs.	Orange, Riverside, San Bernardino, San Diego, and Imperial Cos.	NE
Nyctinomops macrotis	big free-tailed bat	None	SSC	None	Low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites.	SW San Diego Co.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
Heteromyidae	**Kangaroo Rats, Pocket Mice, and Kangaroo Mice**						
Dipodomys stephensi	Stephen's kangaroo rat	FE	FT	None	Primarily in annual and perennial grassland habitats, but may occur in coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas. Preferred perennials are buckwheat and chamise; preferred annuals are brome grass and filaree.	San Jacinto Valley from Riverside, Riverside Co., south to vicinity of Vista, San Diego Co.	NE
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None	SSC	None/ USFS	Coastal sage scrub and grasslands; desert cactus, creosote bush, and sagebrush habitat.	Records exist from Burbank and San Fernando, Los Angeles Co. east to the City of San Bernardino, San Bernardino Co. south through western Riverside Co.	NE
Perognathus longimembris pacificus	Pacific pocket mouse	FE	SSC	IN/CC	Sandy herbaceous areas, usually in association with rocks or coarse gravel, sagebrush, scrub, annual grassland, chaparral and desert scrubs.	Los Angeles Co. to extreme SW San Diego Co. Farthest known occurrences are within three miles of the coast.	NE
Cricetidae	**Mice, Rats, and Voles**						
Soricidae	**Shrews**						
Sorex ornatus salicornicus	southern California saltmarsh shrew	None	SSC	None	Coastal marshes. Requires dense vegetation and woody debris for cover.	Los Angeles, Orange, and Ventura Cos.	NE

TABLE 3.3-4
SPECIAL-STATUS WILDLIFE SPECIES NOT EXPECTED TO OCCUR

VERTEBRATES

Scientific Name	Common Name	Federal	State	NCCP/Other	Preferred Habitat	Distribution	Occurrence On-site
Mustelidae	**Weasels, Skunks, and Otters Family**						
Taxidea taxus	American badger	None	SSC	None	Drier, open stages of shrubland, forest, and herbaceous habitats with friable soils.	Throughout most California counties.	NE

NE = Species not expected to occur on-site

Key to Species Listing Status Codes

FE	Federally Listed as Endangered	SE	State Listed as Endangered
FT	Federally Listed as Threatened	ST	State Listed as Threatened
FPE	Federally Proposed as Endangered	SCE	State Candidate for Endangered
FPT	Federally Proposed as Threatened	SCT	State Candidate for Threatened
FPD	Federally Proposed for Delisting	SR	State Rare
FC	Federal Candidate Species	SFP	State Fully Protected
		SSC	California Special Concern Species

Natural Community Conservation Planning (NCCP)
IN Identified NCCP Species – Covered Species
IN/CC Identified NCCP Species – Conditionally Covered Species
TN Target NCCP Species – Covered Species

U.S. Forest Service, Cleveland National Forest
USFS Cleveland National Forest Sensitive Species

SOURCE: PCR Services Corporation, 2012b.

Coastal California gnatcatcher (*Polioptila californica californica*) generally prefers open sage scrub with California sagebrush (*Artemisia californica*) as a dominant or co-dominant species (Mock, 2004). Gnatcatchers are more abundant near sage scrub-grassland interface than where sage scrub grades into chaparral. Dense sage scrub is occupied less frequently than more open sites and gnatcatchers are mostly absent from coastal areas dominated by black sage (*Salvia mellifera*), white sage (*S. apiana*), or lemonade berry (*Rhus integrifolia*). Nest placement is typically in areas with less than 40 percent slope gradient (Mock, 2004). Coastal California gnatcatchers are highly variable correlated with distance from the coast, ranging from less than 1 hectare to over 9 hectare (Mock, 2004). Non-breeding season home range size is about 80 percent larger than breeding season home range (Mock, 2004).

A coastal California gnatcatcher was observed within the project site during a non-breeding season survey in 2007; however, due to the negative results of focused breeding season surveys conducted in 1999, 2002, and 2010, this observation of a single coastal California gnatcatcher seen during the 2007 off-season surveys was likely a dispersing transient moving through the project site, as detailed in the species account below.

Although focused surveys were conducted for the coastal California gnatcatcher at the project site, no coastal California gnatcatchers were observed during the 1999 or 2002 breeding season surveys. However, during the 2007–2008 non-breeding season surveys, an observation of a single coastal California gnatcatcher was recorded on October 16, 2007 within a sagebrush scrub/ruderal community in the eastern portion of the project site. It should be noted that due to the timing of this observation outside of the breeding season, the poor suitability of the habitat where it was observed, and the effect that the 2007 wildfire had on suitable habitat, it is likely that this individual was a dispersing transient moving through the project site.

No other coastal California gnatcatchers were observed during the 2007-2008 surveys. The project site is not within any critical habitat designated by the USFWS for the coastal California gnatcatcher; however, critical habitat for this species occurs across Santiago Canyon Road, approximately 75 feet south of the project site. Focused breeding season surveys for the coastal California gnatcatcher were conducted again in 2010; no coastal California gnatcatchers were detected on-site. Therefore, it is not believed that the project site is utilized for breeding habitat for this species.

Critical Habitat

The project site is not within any USFWS designated critical habitat for listed plant or wildlife species.

Oak Trees

The majority of the oak trees occur primarily in oak woodlands located in ravines and drainage bottoms along the northwestern and northeastern boundaries of the project site. Within the ravines and drainage bottoms, most of the trees are in good condition, with a few small pockets of oaks displaying damage from fire. However, most of the damaged trees are experiencing new growth from resprouting. Other less-healthy trees exhibited trunk wounds, scorched bark, and reduced

canopies, which are conditions that could eventually lead to internal decay or susceptibility to insect and disease attack, ending ultimately in pre-mature tree decline and death.

The project site contains a total of 619 native oak trees that meet the F/TSP requirements for oak tree inventory; minimum trunk diameters of five inches (at 4.5 feet above grade). Smaller oaks, down to three inches trunk diameter were inventoried, but there were very few observed on-site indicating that sustainability is affected by the lack of regeneration.

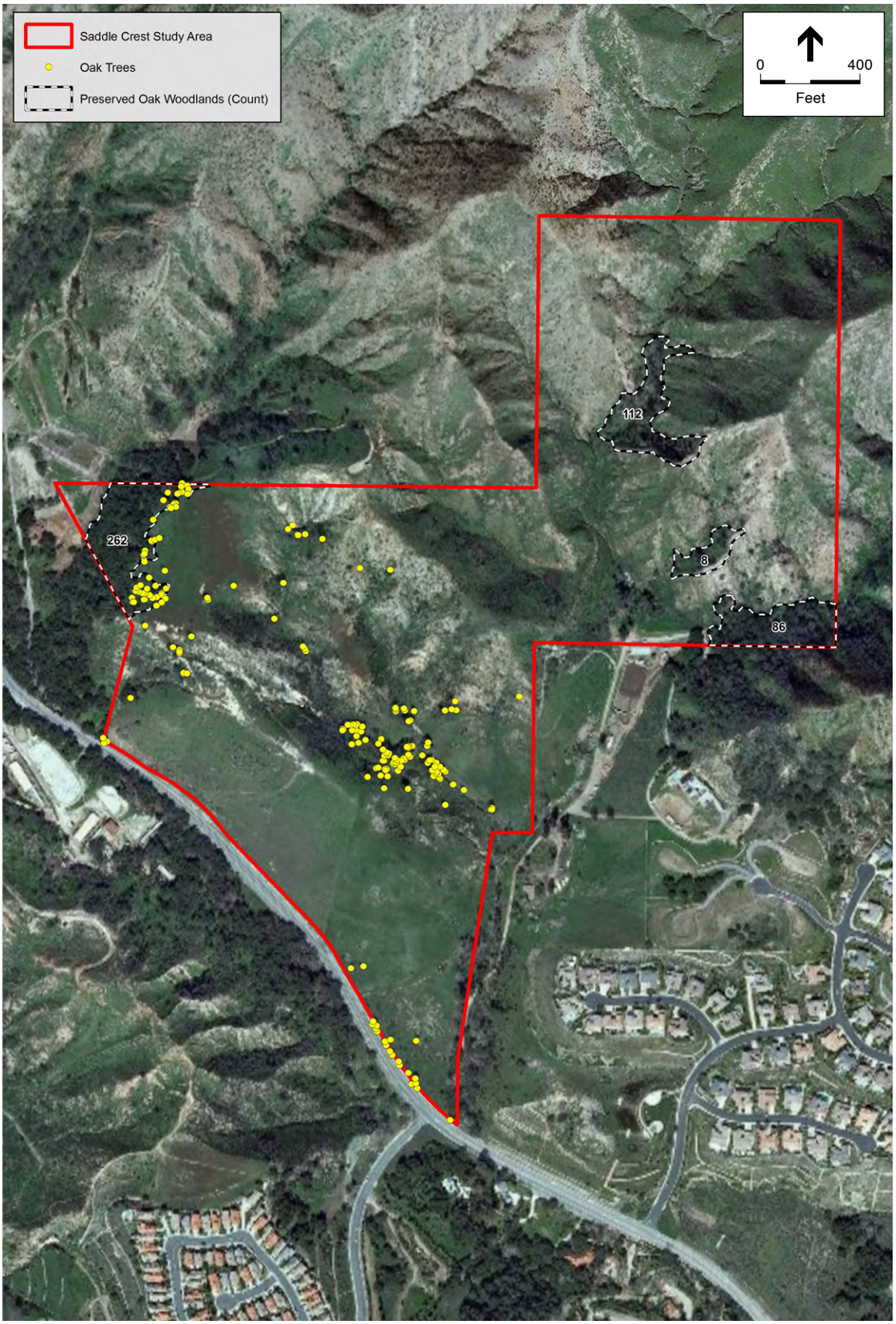
The Saddle Crest Tree Management and Preservation Plan (Dudek, 2011) identified 151 coast live oak trees within the proposed project's limit of grading and 46 trees within the fuel modification areas outside of the limit of grading, as shown in **Figure 3.3-3**. Outside the project development envelope, which would be preserved open space, there are an estimated 422 coast live oak trees. For the 422 trees outside of the project development envelope, the number of trees were quantified and overall quality of the coast live oak trees/oak woodlands within these areas were assessed; however, point locations and a full inventory of each tree were not conducted within these areas. Details of the location, size, and health of each tree identified within the project development envelope are included in the Saddle Crest Tree Management and Preservation Plan (Appendix D).

Jurisdictional Features

Each drainage feature located on the project site was determined to be a potential jurisdictional "water of the U.S." based on the presence of an OHWM, as well as secondary indicators of hydrology including evidence of erosion, deposition and sorting of sediment or debris, and changes in vegetation. Because these criteria were met for many of the drainage features and associated tributaries throughout the study area, a series of transects were run to determine the extent of jurisdictional non-wetland "waters of the U.S."

All non-wetland "waters of the U.S." were traversed within or along the channel to determine the limits of jurisdiction, and the OHWM was measured. Where channels diverged to form low, intermediate areas between the channels, the entire area between the outermost edge of each channel was considered within the OHWM. Where the intermediate area was equal to or above the height of the uppermost bank of either channel, the OHWM was recorded individually for each channel. The CDFG jurisdiction was defined to the top of bank of the stream/channels or to the outer dripline of vegetation associated with the drainage, as applicable.

The study area contains a total of three drainage systems that support 8,342 linear feet over 0.28 acre of USACOE jurisdictional "waters of the U.S.," 9,402 linear feet over 0.31 acre of RWQCB jurisdictional "waters of the State," and 7.87 acres of CDFG jurisdictional streambed and associated riparian habitat, as shown in **Figure 3.3-4** and summarized in **Table 3.3-5**. Details of the jurisdictional delineation are included in Appendix D (PCR Services Corporation, 2012a).



SOURCE: Aerial Express, 2009; Dudek, 2010; PCR Services Corporation, 2012.

Saddle Crest Homes . 211454

Figure 3.3-3
Oak Trees

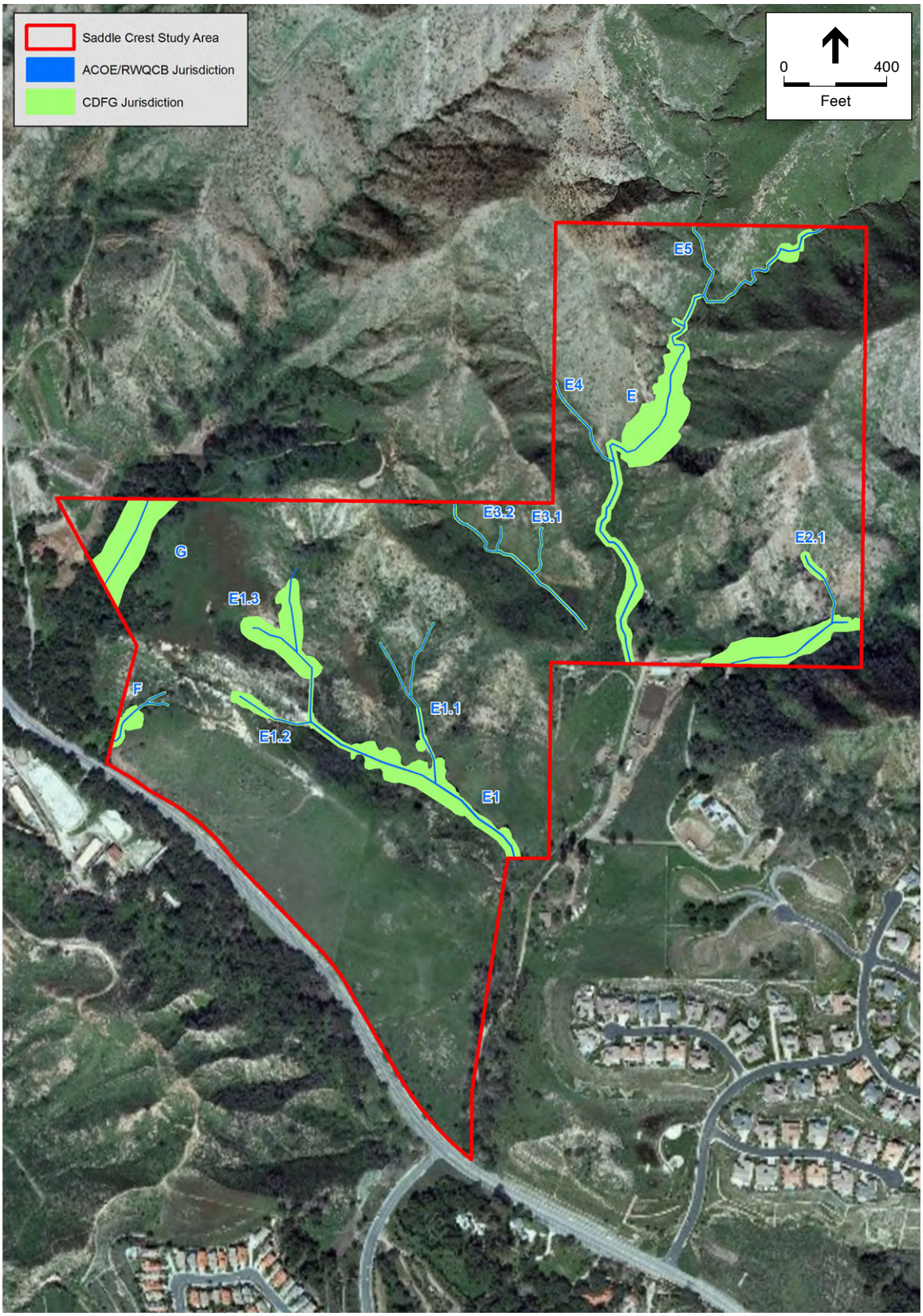
TABLE 3.3-5
JURISDICTIONAL FEATURES

	Length (feet)		Area (acres)[b]		
Drainage Feature	**USACOE**	**RWQCB**	**USACOE**	**RWQCB**	**CDFG**
Drainage E	2,843	2,843	0.09	0.09	2.57
Tributary E1[a]	3,239	3,239	0.12	0.12	2.53
Tributary E2[a]	800	800	0.03	0.03	1.19
Tributary E3[a]	N/A	1,060	N/A	0.03	0.08
Tributary E4	400	400	0.01	0.01	0.02
Tributary E5	300	300	0.01	0.01	0.02
Tributary F	296	296	0.01	0.01	0.20
Tributary F1	84	84	<0.01	<0.01	<0.01
Tributary G	380	380	0.01	0.01	1.26
Total	**8,342**	**9,402**	**0.28**	**0.31**	**7.87**

[a] The USACOE/RWQCB and CDFG acreages calculated for each tributary include the jurisdictional acreages for all sub-tributaries within that tributary system (e.g., jurisdictional acreages for Sub-tributary E3.2 are included as a part of Tributary E3).
[b] Jurisdictional acreages often overlap and are therefore not additive (e.g., USACOE acreages are often included in the total RWQCB and CDFG jurisdictional acreages).

SOURCE: PCR Services Corporation, 2012a.

On September 19, 2011, PCR Services Corporation's regulatory scientist Beth Martinez and biologist Maile Tanaka met with USACOE representative Jason Lambert to verify the jurisdiction mapped on-site. Based on feedback from that meeting, a subsequent delineation of the on-site downstream portion of Drainage E1 was conducted on October 11, 2011 by Beth Martinez and Maile Tanaka. Upon revising the findings for Drainage E1 per the request of Mr. Lambert, and upon further coordination with USACOE, Mr. Lambert verbally confirmed the study area's jurisdictional delineation findings (PCR Services Corporation, 2012a). The jurisdictional acreages presented in this document reflect the revisions requested by USACOE.



SOURCE: Aerial Express, 2009; PCR Services Corporation, 2012.

Saddle Crest Homes . 211454

Figure 3.3-4
Jurisdictional Features

3.3.2 Thresholds of Significance

The following thresholds of significance are based upon the standards in Appendix G of the *CEQA Guidelines,* the County of Orange Environmental Analysis Checklist, the standards in *CEQA Guidelines* Section 15065, and relevant County policies. A project would have a significant adverse effect on biological resources if it would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; or
- Substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community or substantially reduce the number or restrict the range of an endangered, rare, threatened or other special status species

  A substantial adverse effect would occur under the first standard, above, if implementation of the project would (1) substantially reduce the number or restrict the range of any special status species; or(2) have the potential to result in a "taking" of a species that is listed, or proposed for listing, or a candidate for listing as an endangered or threatened species under the state and/or federal Endangered Species Act, a rare species, or a species that is protected by the MBTA or, Fish and Game Code Sections 3511, 4700, and 5050, or to modify the habitat for such a species, so as to result in such an impact.

  The second standard, above is based on CEQA Guidelines Section 15065 which provides, in part, that a project may have a significant effect on the environment if it has the potential to substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community. CEQA Guidelines Section 15065 also provides that a project may have a significant effect on the environment if it would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species" The significance standards set forth above do not limit application of this test to endangered, rare, or threatened species, but extend it to all special-status species. Thus, a substantial adverse effect would be found under either standard, if implementation of the project would substantially reduce the number or restrict the range of any special-status species.

  Special-Status Species and Sensitive Species are defined on page 3.3-16 of this section. The term Rare Species is defined by CEQA Guidelines Section 15080.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

  A substantial adverse effect would occur if implementation of the project would result in direct removal of riparian vegetation; disruption of riparian wildlife habitat, particularly animal dispersal corridors and/or understory vegetation; intrusion within the upland edge of the riparian canopy, leading to potential

disruption or animal migration or breeding through increased noise, light and glare, and human and domestic animal intrusion; disruption of a substantial amount of adjacent upland vegetation where such vegetation plays a critical role in supporting riparian or other sensitive natural community-dependent wildlife species, or where such vegetation aids in stabilizing steep slopes adjacent to the riparian corridor, which reduces erosion and sedimentation potential; or, construction activity that disrupts critical time periods (nesting, breeding) for fish and other wildlife species.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

  A substantial adverse effect would occur if implementation of the project would result in a net loss of a significant environmental value associated with federally protected wetlands, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or threaten the continuity of wetland-dependent animal or plant species; substantially interrupt wildlife access, use, and dispersal in wetland areas and between contiguous habitats through riparian areas; or, diminish hydrological conditions, such as the quantity and quality of run-off, of wetland systems.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

  A project has the potential to adversely affect wildlife movement or nursery sites if the project would reduce or eliminate species diversity or abundance; reduce or eliminate quantity or quality of nesting areas; limit reproductive capacity through losses of individuals or habitat; fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources; limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes); interfere with natural processes, such as fire or flooding, upon which the habitat depends on.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

  A project would conflict with local policies or ordinances protecting biological resources, if it contravenes any mandatory local policy or ordinance designed to protect biological resources.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

  A project would conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, if it impeded the implementation of such plan.

3.3.3 Methodology

The following analysis relies upon the information contained within the technical reports prepared for the Saddle Crest Homes project (see Appendix D), which included both primary (field reconnaissance) and secondary (data base research) information. The technical studies utilized this information to determine potential impacts to biological resources as a result of the proposed project or non-clustered scenario.

Project impacts are identified in Section 3.3.5, for each impact, organized by the significance criteria. Mitigation measures were considered and applied, and then a final determination of significance reached. In conducting the impact analysis, three principal components of the *CEQA Guidelines* outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the impacts considered the interrelationship of these three components.

3.3.4 Project Design Features

The following project design features will be implemented to reduce or avoid potentially significant impacts to sensitive biological resources. All project design features will be included in the Mitigation Monitoring and Reporting Program.

PDF-1 Open space within Saddle Crest Homes accounts for 70 percent of the project site (approximately 79.8 acres). Approximately 51 acres of that open space will be offered for dedication to the County and is adjacent to the Cleveland National Forest, providing a forest buffer, which is a goal of the F/TSP.

PDF-6 A detailed landscape plan for the project area has been prepared by a licensed landscape architect taking into account County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures contained in the County of Orange Landscape Code (Ord. No. 09-010).

PDF-7 In accordance with the F/TSP, a Tree Management and Preservation Plan has been developed by certified arborists.

PDF-8 In accordance with the Tree Management and Preservation Plan, oak tree monitoring will be performed following all tree plantings and relocations within the project site and directly adjacent to the site for a period of seven years. Oak trees will be maintained by the homeowners association as part of the project's CC&Rs.

PDF-9 New slope areas along the exterior of the proposed development area will be revegetated with drought tolerant species. Plant species for revegetation will be in accordance with the F/TSP and Orange County Fire Authority plant palettes and use predominantly native species.

PDF-42 Best management practices will be incorporated into the project to ensure that indirect impacts (i.e., edge effects) are avoided or minimized to the maximum extent possible. Lighting will be pointed away from the wildlife corridor and ambient light levels will be minimized to the maximum extent practicable. Additionally, the project's Water Quality Management Plan and Stormwater Pollution Prevention Plan will ensure that project runoff will not adversely affect the drainage within the wildlife corridor. Noise standards will follow County Codes and General Plan Policies. In addition, exterior lighting will not be used in the 50-foot setback area for the wildlife corridor and fencing will be limited to open fencing that does not exceed 40 inches in height. Vegetation thinning within the fuel modification area that encroaches into the corridor will only occur on occasion and during daylight hours.

PDF-43 Short-term construction-related noise impacts will be reduced by the implementation of a number of measures including the following:

- During all excavation and grading on-site, the construction contractors will equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards to reduce construction equipment noise to the maximum extent practicable. The construction contractor will place all stationary construction equipment so that emitted noise is directed away from the wildlife movement corridor and staging areas will not be placed in proximity to the wildlife corridor.
- The construction contractor will stage equipment in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors (the wildlife movement corridor and preserved habitat areas) during all project construction.
- All construction work will occur during the daylight hours. The construction contractor will limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by the County.
- The construction contractor will limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes will not pass through sensitive land uses or residential dwellings.

PDF-44 The preliminary plant list was reviewed, and with the proposed plant palette, a native plant species buffer will serve as a barrier to minimize the risk of introducing invasive, exotic species near the corridor. In addition, signs will be installed to educate future residents of the project about the wildlife corridor and ensure that trash, debris, and disturbance by trespassing or dogs are not permitted within or near the corridor.

PDF-45 Protection measures for oak trees include fencing and protection of oak trees adjacent to construction areas. In addition, placement of fill, storage of equipment, and grading shall be prohibited within the dripline of any tree

proposed for preservation. Retaining walls will be used to protect oaks proposed for preservation from surrounding cut and fill, and no surfaces will be placed within a six-foot radius of oak tree trunks per the requirements of the F/TSP; any retaining walls will be placed outside of the root zone of the oak tree to be preserved.

PDF-46 Although portions of the study area are within the Congressional boundaries of the Cleveland National Forest and therefore are not covered under the NCCP/HCP, the removal of coastal sage scrub communities will be conducted in compliance with the Construction Minimization Measures identified in the NCCP/HCP.

PDF-49 The Preliminary Landscape Plan for the project has been designed to:

- Preserve open space areas and create new landscaping that would assist in carbon intake and minimize surface water runoff.
- Incorporate the use of native/drought tolerant plant materials.
- Utilize only a small percentage of turf in the common area landscape.

3.3.5 Project Impacts

Biological resources may be either directly or indirectly affected by a project. Impacts may occur as a result of construction of the project and as a result of operation after construction is complete. Furthermore, direct and indirect impacts may be either permanent or temporary. These impacts are defined below:

- **Direct impacts** are caused by a project and occur at the same time and place as the project. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities would be considered a direct impact. They are the immediate impacts of a project on a species or its habitat.
- **Indirect impacts** occur later in time or are farther removed in distance, but are still reasonably foreseeable and attributable to project-related activities.
- **Permanent impacts** are impacts that result in irreversible impacts or irreversible removal of biological resources, such as the elimination of a plant or animal community or habitat loss.
- **Temporary impacts** are those considered reversible, such that biological resources can be successfully restored.

Impact 3.3.1: Effect any species identified as a candidate, sensitive, or special-status species, either directly or through habitat modifications.

Significance Standard for Impact 3.3.1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Or would the project substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal

community, or substantially reduce the number or restrict the range of an endangered, rare, threatened or other special status species?

Proposed Project

Construction

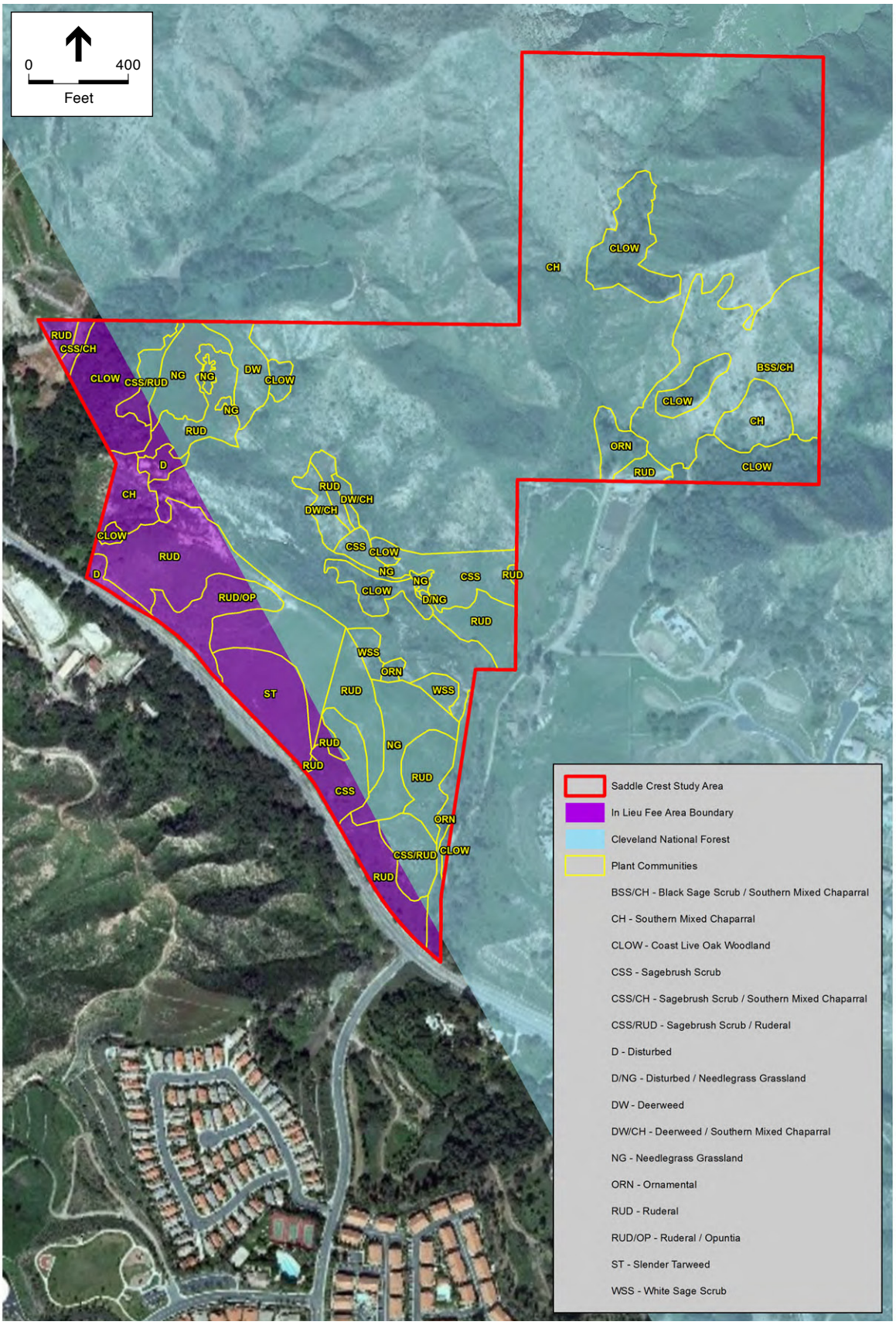
Adverse impacts on wildlife are generally associated with the degree of habitat loss from the standpoint of physical character, quality, diversity, and abundance of vegetation. Construction of the proposed project would result in direct removal of wildlife habitat and the potential mortality of common wildlife species existing on-site as well as the displacement of more mobile species to suitable habitat areas nearby. However, these impacts would not substantially reduce habitat for any such wildlife species, reduce general plant or wildlife populations below self-sustaining levels within the region or threaten to eliminate a plant or animal community. As a result impacts to common wildlife and plant species are considered less than significant. Construction impacts to special-status species are discussed below.

Project design features have been included as part of the proposed project that would reduce impacts to biological resources during construction activity. This includes Project Design Feature PDF-1, which requires approximately 51 acres of the site to be dedicated as open space, which would limit the overall extent of construction-related disturbances. Regarding reducing general construction-related impacts to sensitive wildlife and vegetation, Project Design Feature PDF-42 would require BMPs regarding lighting, drainage, noise, setbacks, and reduction of fire hazards during construction. Project Design Feature PDF-46 would require that the removal of coastal sage scrub communities be conducted in compliance with the Construction Minimization Measures that are identified in the NCCP/HCP. These general practices would reduce impacts during temporary construction activity. Additional species-specific mitigation measures would be required, as indicated in the discussion below, to further reduce impacts during construction. All mitigation measures referenced (in Section 3.3.5) are provided in detail in Section 3.3.6.

Special-Status Plants

With the exception of Catalina mariposa lily, foothill mariposa lily, and chaparral nolina which were observed on-site during focused plant surveys, other special-status plant species recorded the region are not expected to occur on the project site due to the lack of suitable habitat, the project site being outside of the known elevation or distributional range for the species, and the fact that no special-status species other than those mentioned above were observed during focused survey conducted on the project site.

The southwestern portion of the study area is within the NCCP/HCP in-lieu fee area (see **Figure 3.3-5)**. Projects within the in-lieu fee area of the NCCP/HCP can mitigate for losses to coastal sage scrub habitat with the payment of a $65,000 fee per acre to the Nature Reserve of Orange County (McAfee, 2006 per PCR Services Corporation, 2012). In addition, project applicants using the in-lieu fee program to mitigate for impacts to coastal sage scrub can utilize the mitigation opportunities provided through the NCCP/HCP (i.e., impacts to any number of Catalina mariposa lilies are covered and impacts to less than 20 foothill mariposa lilies are covered).



SOURCE: Aerial Express, 2009; USDA Forest Service - GTSC, 2000; PCR Services Corporation, 2012.

Saddle Crest Homes . 211454

Figure 3.3-5

Relationship to In-Lieu Fee Area of the Orange County NCCP

The majority of the study area is located outside of the in-lieu fee area and therefore, the in-lieu fee program cannot be used to mitigate for all impacts to coastal sage scrub on-site. However, the in-lieu fee program can be applied towards those areas of the property within the in-lieu fee boundary.

Catalina mariposa lily: Construction of the proposed project would impact approximately 100 Catalina mariposa lily plants (post-fire count covering approximately 0.4 acre). Catalina mariposa lily is a CNPS List 4.2 species which is a "watch list" species and no official protection is provided under this listing. However, Catalina mariposa lily is identified as a covered species under the NCCP/HCP. Catalina mariposa lily is the most common in the Santa Ana Mountains' foothills where population numbers in the hundreds or low thousands are typical for extended populations. This species is more abundant following a fire when it can be expected that the populations are or one or two orders of magnitude larger than prior to the fire. The Limestone-Lomas Ridge and Weir Canyon populations (now part of the Irvine Ranch Conservancy) had recorded occurrences of 62,000 in 1999 and 2000 (16 populations), and 81,000 plants were recorded in 2008 (172 populations). Prior to a fire, it could be expected that these areas may support 5,000 to 10.000 plants. In 1994, numbers of Catalina mariposa lilies in the San Joaquin Hills area were estimated in the tens of thousands (PCR Services Corporation, 2012b). The approximate 100 Catalina mariposa lilies that would be impacted comprise of a low amount of the overall population of individuals recorded in the vicinity. Moreover, the permanent removal of these plants would not result in a measureable decline of this species in the vicinity or the region and would not cause this species to drop below self-sustaining levels. Therefore, the proposed project would not significantly reduce Catalina mariposa lily populations in the region or substantially reduce the number of Catalina mariposa lilies in the vicinity of the project area and impacts are considered less than significant.

Foothill mariposa lily: Project construction would impact approximately 200 foothill mariposa lily plants covering approximately 3.2 acres within the grading footprint of the project site (1.3 acres of which are within fuel modification zone). Foothill mariposa lily is a CNPS List 1B.2 species. The loss of 200 individuals represents a substantial number of this subspecies, whose population numbers are relatively low on the southern flank of the Santa Ana Mountains; therefore, impacts to foothill mariposa lily are considered potentially significant. The foothill mariposa lily is a conditionally covered species under the NCCP/HCP, which requires that a mitigation plan be written for impacts to more than 20 individuals of this species. However, the majority of the project site (including the on-site populations of this species) is within the Congressional boundaries of the Cleveland National Forest and outside of the in-lieu fee area. Therefore, because foothill mariposa lily is outside of the NCCP in-lieu fee boundary, the NCCP cannot be used for mitigation for a conditionally covered species such as the foothill mariposa lily.

As specified under Mitigation Measure MM 3.3-1A, impacts to foothill mariposa lilies would be mitigated through off-site translocation and off-site seeding onto the preserved Saddle Creek North property. Under Mitigation Measure MM 3.3-1B, the applicant shall prepare a Planting Plan that includes performance measures and adaptive management practices that ensure a

minimum 90 percent survivorship. Impacts would be less than significant through implementation of Mitigation Measures MM 3.3-1A and MM 3.3-1B, respectively.

Chaparral nolina: Project construction would impact approximately 300 chaparral nolina individuals covering approximately 5.3 acres within the project site. Chaparral nolina is a CNPS List 1B.2 species and USFS sensitive species. Due to the limited distribution for this species in Orange County, the removal of 300 individuals represents a loss of a substantial number of this species is considered potentially significant. However, the NCCP/HCP's in-lieu fee was established a means to offset impacts to covered species through payment into the program. Payment into the in-lieu fee program applies to those areas within the project that lie within the in-lieu fee coverage area (see Figure 3.3-5). As specified under Mitigation Measure MM 3.3-1A, impacts to chaparral nolina would be mitigated through payment into the NCCP/HCP in-lieu fee program and/or off-site translocation and/or off-site seeding onto the preserved Saddle Creek North property. Under Mitigation Measure MM 3.3-1B, the applicant shall prepare a Planting Plan that includes performance measures and adaptive management practices that ensure a minimum 90 percent survivorship. Impacts would be less than significant through implementation of Mitigation Measures MM 3.3-1A and MM 3.3-1B, respectively.

Special-Status Wildlife

There are several special-status wildlife species that occur within the region. However, most of these special-status species are not expected to occur within the study area due to the lack of suitable habitat or because the study area is outside of the known range for the species. As such, no impacts are expected to occur to these species. However, several special status wildlife species were observed or have potential to occur within the study area that could be affected during construction of the proposed project.

Amphibians: No special-status amphibian species were observed on-site and none are expected to occur within the project site due to lack of suitable habitat.

Reptiles: Special-status reptile species observed within the project site include the coastal western whiptail. The native plant communities and undisturbed conditions of the project site also provide habitat that is suitable for the following special-status wildlife species: coast horned lizard, Coronado skink, silvery legless lizard, coastal rosy boa, San Bernardino ring-necked snake, San Diego ring-necked snake, San Diego mountain kingsnake, coast patch-nosed snake, and northern red-diamond rattlesnake. These special-status species are designated CDFG State Species of Special Concern and/or USFS sensitive (Cleveland National Forest); however, none are state or federally listed. Additionally, the orange-throated whiptail is a "Target Species" under the NCCP/HCP and the coast horned lizard, Coronado skink, coastal rosy boa, San Bernardino ring-necked snake, and northern red-diamond rattlesnake are covered as "Identified Species" under the NCCP/HCP and are therefore covered within the portion of the study area that lies within the NCCP/HCP's in-lieu fee area. The loss of habitat on the scale proposed would not threaten the regional population of these aforementioned species or restrict the range of these species and permanent impacts to habitats that support these species would not result in a substantial decline in the region and would not cause these species to drop below self-sustaining

levels. Moreover, Mitigation Measure MM 3.3-1D would require preconstruction clearance surveys to avoid direct impacts to special-status species, including the aforementioned reptile species. As described under this mitigation measure, a qualified biologist would relocate all special-status animals to suitable habitats within surrounding open space areas that would remain undisturbed. Impacts to special-status reptiles would be less than significant.

Birds: Special-status avian species observed within the project site include the coastal California gnatcatcher, a federally listed threatened species. Habitats found on the site including undisturbed coastal sage scrub and coast live oak woodland provide suitable habitat for several State Species of Special Concern including northern harrier, loggerhead shrike, coastal cactus wren, and grasshopper sparrow, as well as state or federal listed species that include golden eagle (also a state fully protected species), American peregrine falcon (foraging), and coastal California gnatcatcher. Based on focused surveys and habitat evaluations conducted on the study area, it has been determined that the loss of habitat for the aforementioned Species of Special Concern on the scale proposed would not threaten the regional populations to drop below self-sustaining levels. Project Design Feature PDF-43 would minimize any construction-related noise that could potentially affect wildlife species, including birds. Moreover, Mitigation Measure MM 3.3-1E would require vegetation clearing be conducted outside of the breeding bird season, and would reduce impacts to less than significant. The Biological Resources Assessment determined that the loss of habitat on the scale proposed would not threaten the regional population numbers, and removal of their habitat represents a less than significant impact. This determination was made in light of the project impact to potential habitat on-site as compared to the 37,000 acres set aside within the NCCP/HCP Reserve System, which also provides habitat for these species. Project-related construction impacts on the aforementioned listed species are discussed in greater detail below.

- **American Peregrine Falcon:** Nesting habitat of the American peregrine falcon consists of steep cliffs, which are absent on, and/or adjacent to, the project site. Therefore, implementation of the proposed project is not expected to result in impacts to nesting sites or breeding populations of this species. Implementation of Mitigation Measure MM 3.3-1E would ensure that no impacts to nesting sites occur.

- **Golden Eagle:** The golden eagle is a federally endangered and state fully-protected species and a species covered under the NCCP/HCP. Planned activities that would affect golden eagle habitat are authorized if the habitat is more than one-half mile from an active or historically active nesting site. If the habitat is less than one-half mile from an active or historically active nesting site, planned activities shall be sited in such a way that the activity has minimal potential to cause abandonment of the nesting site.

  Golden eagles prefer to nest on rocky crags or slicer cliff faces, although they will occasionally build a nest in a tree, often returning annually to the same nest. An active golden eagle nesting area exists on the cliffs of the Santiago Truck Trail, southeast of Modjeska. The golden eagle nest is more than approximately 0.5 mile northeast of the northeastern corner of the study area (Pete Bloom, pers. comm. 2012). The proposed project's limits of grading (i.e., planned activities) are greater than approximately 0.8

mile from the golden eagle nest. Additionally, the golden eagle nest is on the far side of the ridgeline adjacent to the study area's northern boundary; thus, the ridgeline provides a barrier between the nest and the project site, and the project is out of the line of sight of the golden eagle nest.

Based on the results of the noise analysis conducted for the proposed project, the projected noise levels near the golden eagle nest are estimated to be approximately 40 dBA (Dudek, 2012). A maximum noise level of 60 dBA is typically recommended to avoid indirect impacts associated with noise disturbances for sensitive avian species due to construction activities (e.g., coastal California gnatcatcher, least Bell's vireo), therefore, the noise associated with construction activities for the proposed project which may carry over the ridgeline would be less. In addition, although golden eagles have been noted to be sensitive to human presence near their nests, golden eagles were rarely flushed from their nests during close approaches by aerial helicopter surveys (Dudek, 2012), and therefore seem somewhat tolerable of noise disturbances. In addition, this species is only expected to utilize the site for foraging and direct impacts to nesting sites would not occur due to the lack of suitable nesting habitat within the study area. Moreover, no potential golden eagle nests were observed on the project site during focused surveys and no nests are expected. Therefore, the proposed project would not result in a significant impact to this species.

- **Coastal California Gnatcatcher:** An incidental observation of a coastal California gnatcatcher was recorded within the sagebrush scrub/ruderal vegetation community in the extreme eastern portion of the project site during focused surveys in 2007. Due to the timing of this incidental observation outside of the breeding season, the poor suitability of the habitat where it was observed, and the poor habitat condition during the assessment from the 2007 wildfire, it has been concluded that this individual was a dispersing transient moving through the project site. No coastal California gnatcatchers were detected during focused breeding (USFWS protocol) surveys in 1999, 2002, 2007, 2008, and 2010.

  Critical habitat for coastal California gnatcatcher exists approximately 75 feet to the south of Santiago Canyon Road. Suitable coastal sage scrub habitat is present within the project site; however, no breeding coastal California gnatcatchers were recorded during focused, protocol surveys. Because an individual was observed and suitable "dispersal habitat" (coastal sage scrub and white sage scrub) is currently present, and because this species is known to occur in the vicinity, the project site may be utilized for dispersal in the future. While there is no requirement for compensation for loss of dispersal habitat based on a single recorded occurrence, Mitigation Measure MM 3.3-2 requires compensation for impacts to sensitive natural communities on the project site including coastal sage scrub and white sage scrub, and Mitigation Measure MM 3.3-1E and Project Design Feature PDF-46 would ensure that direct impacts to gnatcatchers would be avoided by requiring preconstruction surveys to identify the presence of breeding and nesting birds and avoidance measures to prevent impacts to breeding birds and their nests. Based on this mitigation and because no breeding or nesting coastal California

gnatcatchers have been recorded on the project site, impacts to the coastal California gnatcatcher are considered less than significant. [2]

Mammals: Special-status bats that have been recorded in the area include: pallid bat, Townsend's big-eared bat, spotted bat, western red bat, and western mastiff bat. The project site does not contain roosting or suitable nesting colony sites for the pallid bat or Townsend's big eared bat; however, the oak woodland on the project site may provide suitable tree roosting sites for the spotted bat, western red bat, and western mastiff bat. All of the aforementioned bat species have the potential to forage on the site. Project construction would result in a removal of potential foraging habitat and potential tree roosting sites, if present. However, the loss of habitat on the scale proposed would not threaten the regional population of these aforementioned species, and permanent impacts to these species would not result in a substantial decline in the region and would not cause these species to drop below self-sustaining levels. Therefore, permanent removal of on-site habitat that may support these species would be less than significant. Mitigation Measures MM 3.3-1F through MM 3.3-1H require the use of buffers to avoid active bat roosts, preconstruction surveys, and bat roost replacement. Implementation of these mitigation measures would reduce potential direct impacts to these species to a less than significant level.

Due to the presence of suitable habitat, the following special-status mammalian species have the potential to occur on-site: San Diego black-tailed jackrabbit, northwestern San Diego pocket mouse, San Diego desert woodrat, and southern grasshopper mouse. The loss of habitat on the scale proposed would not threaten the regional population of these aforementioned species, and permanent impacts to these species would not result in a substantial decline in the region and would not cause these species to drop below self-sustaining levels. Thus, removal of their habitat represents a less than significant impact.

In order to ensure that no special-status wildlife species (including species covered under the NCCP) are present on-site prior to ground disturbing activity, Mitigation Measure MM 3.3-1D would require clearance surveys to avoid direct impacts to special-status species, including trap and release for small mammal and reptile species and avoidance or disassembling of San Diego woodrat dens to direct impacts to San Diego woodrats. Project Design Feature PDF-46, which requires construction activities comply with stringent NCCP/HCP construction measures, would also further reduce any general impacts to mammal species during temporary construction activity.

Nesting Birds: The project site supports trees, shrubs, and ground cover which could be used by breeding raptors and songbirds. Disturbing or destroying active nests is a violation of the MBTA and nests and eggs are protected by Fish and Game Code, Section 3503. The removal of active nests or harassment of a breeding bird protected under these regulations would be a significant impact. Mitigation Measure MM 3.3-1E provide for preconstruction surveys to identify the presence of breeding and nesting birds and avoidance measures to prevent impacts to breeding

[2] Based on preliminary conversations with USACOE representative Jason Lambert (Lambert, 2011) and USFWS representative Jonathan Snyder (Snyder, 2010), because a single gnatcatcher was observed within the study area and is believed to have been dispersing transient moving through the study area, it is likely only informal consultation with the USFWS will be necessary.

birds and their nests. Project Design Feature PDF-46, which requires construction activities to comply with NCCP/HCP construction measures, would also further reduce any general impacts to nesting birds during temporary construction activity. Impacts to nesting birds would be avoided and therefore less than significant with the implementation of Mitigation Measure MM 3.3-1E and Project Design Feature PDF-46.

Operations

Special-Status Plants

Potential adverse impacts to special-status plants associated with the operations of the proposed project may include increased human presence in preserved open space areas where populations of foothill mariposa lilies would be preserved. However, foothill mariposa lilies primarily occur along the upper ridges near the northwest portion of the project site areas where access is difficult due to the steep terrain. Introducing non-native or invasive species into undeveloped areas that support special-status species could result in invasive species outcompeting these natives for water, nutrients, and sunlight. Therefore, implementation of Project Design Features PDF 6, PDF-44, and PDF-49 would reduce the introduction of non-native or potentially invasive species from the development by only utilizing native species in landscaped features. As discussed under the construction-related impact to special-status plants, Mitigation Measures MM 3.3-1A and MM 3.3-1B would further reduce potential impacts to a less than significant level. Mitigation Measure MM 3.3-2 would require off-site mitigation for loss of sensitive natural plant communities, which would further reduce overall impacts to special-status plant species. In addition, Mitigation Measure MM 3.3-1C would require implementation of an Environmental Awareness Program during long-term operation of the project intended to educate residents regarding the sensitive biological resources present in the area.

Wildlife and Nesting Birds

Potential adverse indirect impacts to special-status wildlife associated with operations of the proposed project include: (1) increased vehicular traffic and a corresponding increase in noise and threat of road kill by traffic; (2) an increase in human presence in preserved open space areas; (3) an increase in predatory and feral pets; (4) an increase in litter, pollutants, dust, oil, and other human debris; and (5) an increase in nighttime light spillage onto preserved open space. These incidental indirect impacts would not be expected to threaten the regional population of common or special-status wildlife populations, including nesting birds, nor would operations result in a substantial decline in the region or cause an animal population to drop below self-sustaining levels .Therefore impacts to wildlife and nesting birds during operations are considered less than significant. To reduce potential impact during the operational phase of the project, Mitigation Measure MM 3.3-1C would to implemented educate and raise awareness to residents on the sensitivity of the preserved habitats of the open space area.

Impact Determination: Implementation of Mitigation Measures MM 3.3-1 (A through H) and MM 3.3-2 would reduce impacts to special-status plant and wildlife species, including plant species such as foothill mariposa lily and chaparral nolina, as well as potentially occurring special-status reptile, bat and mammal species included in Table 3.3-3, as well as nesting birds protected under the MTBA and Fish and Game Code (3503) during both construction and

operation to less than significant with mitigation. Impacts to habitat supporting sensitive species would also be considered less than significant following the implementation of mitigation measures. In addition, Project Design Features PDF-1, PDF-6, PDF-43, PDF-44, PDF-46, and PDF-49 would also ensure that impacts to special-status species and sensitive habitat are less than significant. The proposed project would not substantially reduce habitat for any wildlife or plant species, reduce plant or wildlife populations below self-sustaining levels within the region or threaten or eliminate a plant or animal community.

Non-Clustered Scenario

Construction

Similar as discussed above for the proposed project, construction of the non-clustered scenario would result in direct removal of wildlife habitat; however, these impacts would not substantially reduce habitat for common wildlife species, reduce common plant or wildlife populations below self-sustaining levels within the region or threaten to eliminate a plant or animal community.

Construction impacts to special status species would be reduced to less than significant through implementation of project design features that would be included as part of the non-clustered scenario. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which would increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation. Project Design Feature PDF-42 would require best management practices (BMPs) regarding lighting, drainage, noise, setbacks, and reduction of fire hazards during construction and Project Design Feature PDF-46 would require compliance with the Construction Minimization Measures that are identified in the NCCP/HCP. These general practices would reduce impacts during temporary construction activity. Additional species-specific mitigation measures would be required, as indicated below, to further reduce impacts during construction.

Special-Status Plants

Impacts to foothill mariposa lily and chaparral nolina under the non-clustered scenario would be similar as those impacts for the proposed project, because the location of these species is within the development footprint of both project scenarios. Due to the limited distribution of these species in the region, their removal is considered less than significant following implementation of mitigation measures (MM 3.3-1A and MM 3.3-1B). Project design features as described above (PDF-42 and PDF-46) would contribute to a reduction in potential impacts to these two plant species.

Special-Status Wildlife and Nesting Birds

Impacts to special-status wildlife and nesting birds are under the non-clustered scenario would be similar to the proposed project; however, the non-clustered scenario would impact approximately 20 percent more of the scrub, chaparral, grassland, and oak woodland communities that occur on the project site compared to the proposed project. These plant communities provide habitat to the same special-status wildlife species discussed under the proposed project above. Because a greater amount of suitable habitat for potentially occurring special-status would be removed, indirect impacts through habitat removal is greater under the non-clustered scenario. Mitigation

Measures MM 3.3-1D and MM 3.3-1E include preconstruction (presence/absence) surveys for special-status wildlife, preconstruction breeding bird and nest surveys, and identification of San Diego desert woodrat dens (and nests), respectively. Implementation of these mitigation measures would reduce impacts to special-status wildlife and nesting birds to less than significant.

Operations

Operational impacts associated with the non-clustered scenario are greater than the proposed project, because the non-clustered scenario has an approximate 20 percent greater disturbance footprint, primarily in the northern portion of the study area that would otherwise remain as preserved open space under the proposed project. This additional area of development under the non-clustered scenario would create a greater edge effect of disturbance on adjacent open space areas from human activity, associated noises, nighttime light spillage, and domestic pets when compared to the proposed project. Similar to the proposed project, these incidental indirect impacts would not cause common or special-status wildlife populations to drop below self-sustaining levels within the region and therefore impacts are considered less than significant. Implementation of mitigation measures and project design features would result less than significant impacts to plants and wildlife.

Impact Determination: The non-clustered scenario would result in significant impacts to special-status plant and wildlife species during both construction and operation, including foothill mariposa lily, chaparral nolina, as well as, potentially occurring special-status reptile, bat and mammal species (see Table 3.3-3), as well as nesting birds protected under the MTBA and Fish and Game Code (3503). Implementation of Mitigation Measures MM 3.3-1 (A through H) and MM 3.3-2 would reduce impacts to each individual species and to habitat supporting sensitive species, to less than significant. In addition, Project Design Features PDF-6, PDF-9, PDF-43, PDF-44, PDF-46, and PDF-49 would also ensure that impacts to special-status species and sensitive habitat are less than significant. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation. The non-clustered scenario would not substantially reduce habitat for any wildlife or plant species, reduce plant or wildlife populations below self-sustaining levels within the region or threaten or eliminate a plant or animal community.

Impact 3.3.2: Effect on riparian habitat or other sensitive natural community.

Significance Standard for Impact 3.3.2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

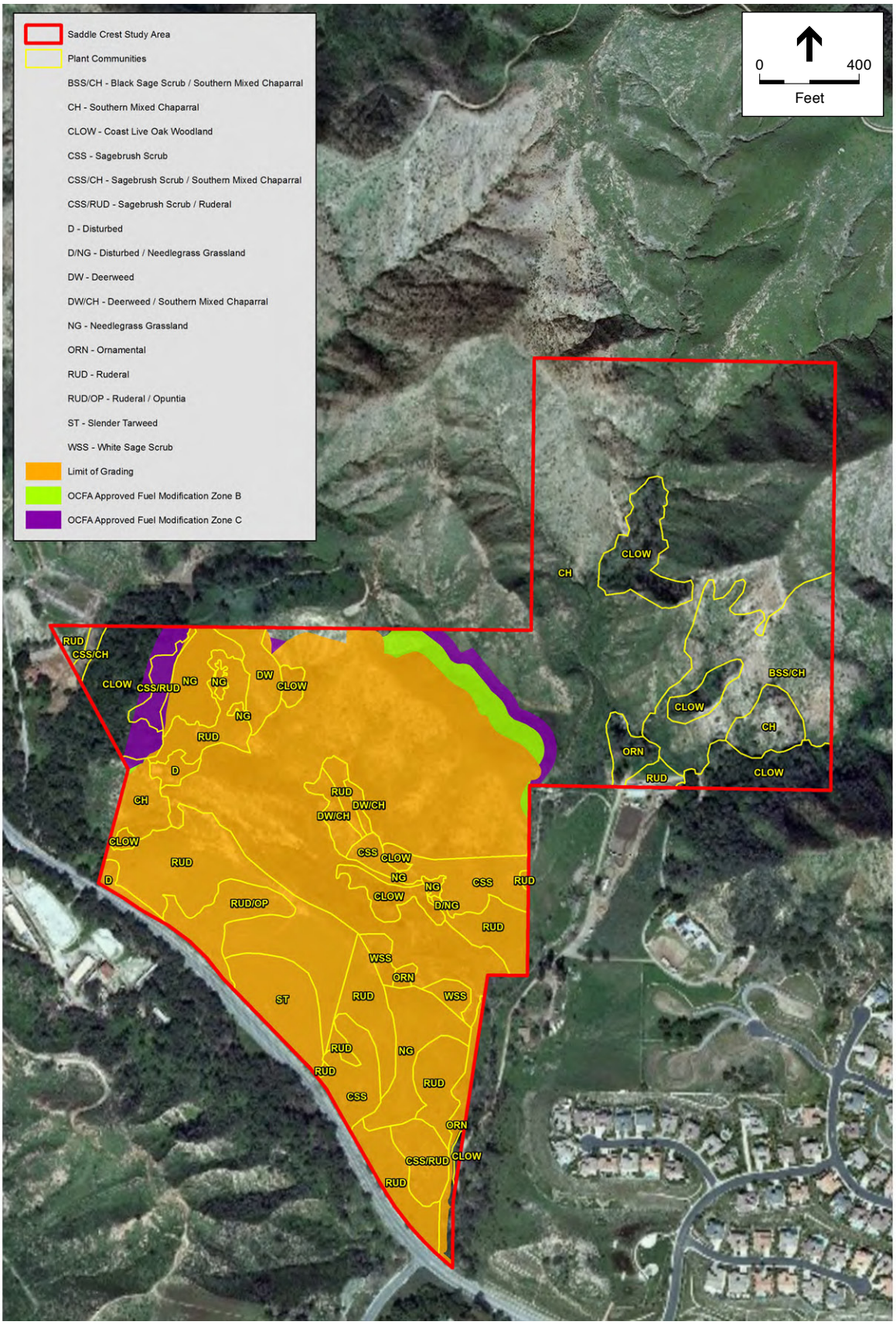
Proposed Project

Construction

There are no riparian communities located on the project site. The proposed project would result in impacts to 62.7 acres of plant communities and other areas, of which 12.9 acres are considered a sensitive plant community (refer to **Figure 3.3-6** and **Table 3.3-6)**. Impacts to sensitive plant communities would include approximately 2.3 acres of coast live oak woodland (including 0.7 acre due to fuel modification), 3.8 acres of sagebrush scrub, 1.9 acres of sagebrush scrub/ruderal (including 0.6 acre due to fuel modification), 4.1 acres of needlegrass grassland (including 0.1 acre due to fuel modification), and 0.8 acre of white sage scrub. White sage scrub and needlegrass grassland are CNDDB high priority communities and are considered sensitive due to their decline in the region and/or their ability to support sensitive species; therefore, impacts to these communities are considered potentially significant. Coast live oak woodland is not a CNDDB sensitive community; however, it is analyzed because of its significance as a resource under the F/TSP. Sagebrush scrub and sagebrush scrub/ruderal are habitats of concern because they are regulated communities under the NCCP/HCP and support the coastal California gnatcatcher, as well as other sensitive species of plants and wildlife. A discussion of impacts and mitigation measures related to wildlife that may utilize sensitive plant communities is provided above under Impact 3.3.1.

As described under Mitigation Measure MM 3.3-2, impacts to coastal sage scrub may be mitigated through payment into the NCCP/HCP in-lieu fee program. This shall only apply to those areas within the property that are located within the in-lieu fee coverage area and will comply with the NCCP/HCP's Construction Related Mitigation Measures. As an alternative to payment into the NCCP/HCP in-lieu fee program, impacts to coastal sage scrub within the in-lieu fee coverage area may be mitigated through on- or off-site restoration/enhancement. Impacts to coastal sage scrub located on the site, but outside of the in-lieu fee coverage area will be mitigated through off-site restoration/enhancement. Under this mitigation measures, the applicant will acquire mitigation land off-site for restoration/enhancement of coastal sage scrub, white sage scrub and needlegrass grassland. Off-site mitigation for impacts to sensitive plant communities may also include mitigation opportunities on Saddle Creek North. Implementation of Mitigation Measures MM 3.3-2 and MM 3.3-4, and Project Design Features PDF-7, PDF-8, PDF-45, and PDF-46 as previously described would ensure that impacts to sensitive plant communities are less than significant.

Implementation of the proposed project would result in temporary impact to coast live oak woodland. Mitigation Measure MM 3.3-4 requires planting of oak trees to mitigate the loss to those oak trees that would be removed. However, it will take several years before the newly planted coast live oak trees reach the maturity and stature of the coast live oak trees currently within the study area; therefore, there would be temporary impacts associated with the removal of the existing mature coast live oak trees that currently provides habitat for wildlife. Mitigation Measure MM 3.3-4 is consistent with requirements of the F/TSP that relate off-setting impacts to oak trees and oak woodlands.



SOURCE: Aerial Express, 2009; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-6
Impacts to Plant Communities
(Proposed Project)

TABLE 3.3-6
IMPACTS TO PLANT COMMUNITIES

		Proposed Project			Non-Clustered Scenario		
Plant Community	**Existing (Acres)**	**Impacts Due to Development (Acres)**	**Impacts Due to Fuel Mod* (Acres)**	**Proposed Project Total Impacts (Acres)**	**Impacts Due to Development (Acres)**	**Impacts Due to Fuel Mod* (Acres)**	**Non-Clustered Scenario Total Impacts (Acres)**
Deerweed	1.2	1.1	0.0	1.1	0.3	0.8	1.2
Sagebrush Scrub	3.8 (0.1)	3.8 (0.1)	0.0	3.8 (0.1)	3.0 (0.1)	0.8	3.8 (0.1)
Sagebrush Scrub/Ruderal	1.9	1.3	0.6	1.9	1.1	0.6	1.7
White Sage Scrub	0.8	0.8	0.0	0.8	0.2	0.5	0.7
Subtotal—Scrub Communities	***7.7 (0.1)***	***7.0 (0.1)***	***0.6***	***7.6 (0.1))***	***4.6 (0.1)***	***2.7***	***7.4 (0.1)***
Black Sage Scrub/Southern Mixed Chaparral	7.0	0.0	0.0	0.0	0.7	1.2	1.9
Deerweed/Southern Mixed Chaparral	0.8	0.8	0.0	0.8	0.8	<0.1	0.8
Sagebrush Scrub/Southern Mixed Chaparral	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal—Mixed Scrub Communities	***8.0***	***0.8***	***0.0***	***0.8***	***1.5***	***1.2***	***2.7***
Southern Mixed Chaparral	62.5	25.1	2.5	27.6	21.0	23.9	44.9
Subtotal—Chaparral Communities	***62.5***	***25.1***	***2.5***	***27.6***	***21.0***	***23.9***	***44.9***
Needlegrass Grassland	4.1	4.0	0.1	4.1	3.1	0.9	4.0
Subtotal—Grassland Communities	***4.1***	***4.0***	***0.1***	***4.1***	***3.1***	***0.9***	***4.0***
Coast Live Oak Woodland	9.5	1.6	0.7	2.3	1.9	3.8	5.7
Subtotal—Oak Woodland Communities	***9.5***	***1.6***	***0.7***	***2.3***	***1.9***	***3.8***	***5.7***
Slender Tarweed	2.4	2.4	0.0	2.4	2.2	0.1	2.3
Subtotal—Forbland Communities	***2.4***	***2.4***	***0.0***	***2.4***	***2.2***	***0.1***	***2.3***
Developed	0.0 (0.2)	0.0 (0.2)	0.0	0.0 (0.2)	0.0 (0.2)	0.0	0.0 (0.2)
Disturbed	0.7 (0.4)	0.7 (0.4)	0.0	0.7 (0.4))	0.6 (0.4)	0.0	0.6 (0.4)
Disturbed/Needlegrass Grassland	<0.1	<0.1	0.0	<0.1	<0.1	0.0	<0.1
Disturbed/Ruderal	<0.1	<0.1	0.0	<0.1	<0.1	0.0	<0.1
Ornamental	1.9	1.0	0.0	1.0	1.0	0.4	1.4
Ruderal	15.1 (0.1)	14.4 (0.1)	0.0	14.4 (0.1)	9.5 (0.1)	4.6	14.1 (0.1)
Ruderal/Opuntia	1.8	1.8	0.0	1.8	1.2	0.6	1.8
Subtotal—Disturbed Communities	***19.5 (0.7)***	***17.9 (0.7)***	***0.0***	***17.9 (0.7)***	***12.3 (0.7)***	***5.6***	***17.9 (0.7)***
Total	**113.7**	**58.8**	**3.9**	**62.7**	**46.6**	**38.2**	**84.8**

* Fuel Modification includes Fuel Modification Zone B, which would be cleared and revegetated, and Fuel Modification Zone C, which will be subject only to the periodic thinning of vegetation; no tree canopy would be removed.
** Acreages in parentheses indicate off-site acreage.

SOURCE: PCR Services Corporation, 2012b.

In addition, Project Design Feature PDF-1, which requires approximately 51 acres be dedicated as open space, which would limit the overall extent of construction-related disturbances. Additionally, Project Design Features PDF-7, PDF-8, PDF-44 and PDF-45 would be required and are intended to minimize impacts to protected trees affected by the proposed project. This includes preparation of a Tree Management and Preservation Plan, tree monitoring for seven years, and additional measures for the protection of oak trees during construction. In addition, Project Design Feature PDF-46 would require construction activity to comply with the requirements of the NCCP/HCP, which would further protect sensitive habitat and natural communities. Impacts to oak woodlands would be considered adverse, but less than significant with the implementation of these mitigation measures and project design features.

Operations

With the exception of fuel modification impacts, no impacts to sensitive natural communities are expected as a result of operation of the proposed project. Fuel modification practices would result in impacts to 1.4 acres of sensitive natural plant communities, which includes 0.7 acre of coast live oak, 0.6 acre of sagebrush scrub/ruderal, and 0.1 acre of needlegrass. Implementation of Mitigation Measures MM 3.3-2 and MM 3.3-4, and Project Design Features PDF-7, PDF-8, PDF-45, and PDF-46 as previously described would ensure that impacts are less than significant.

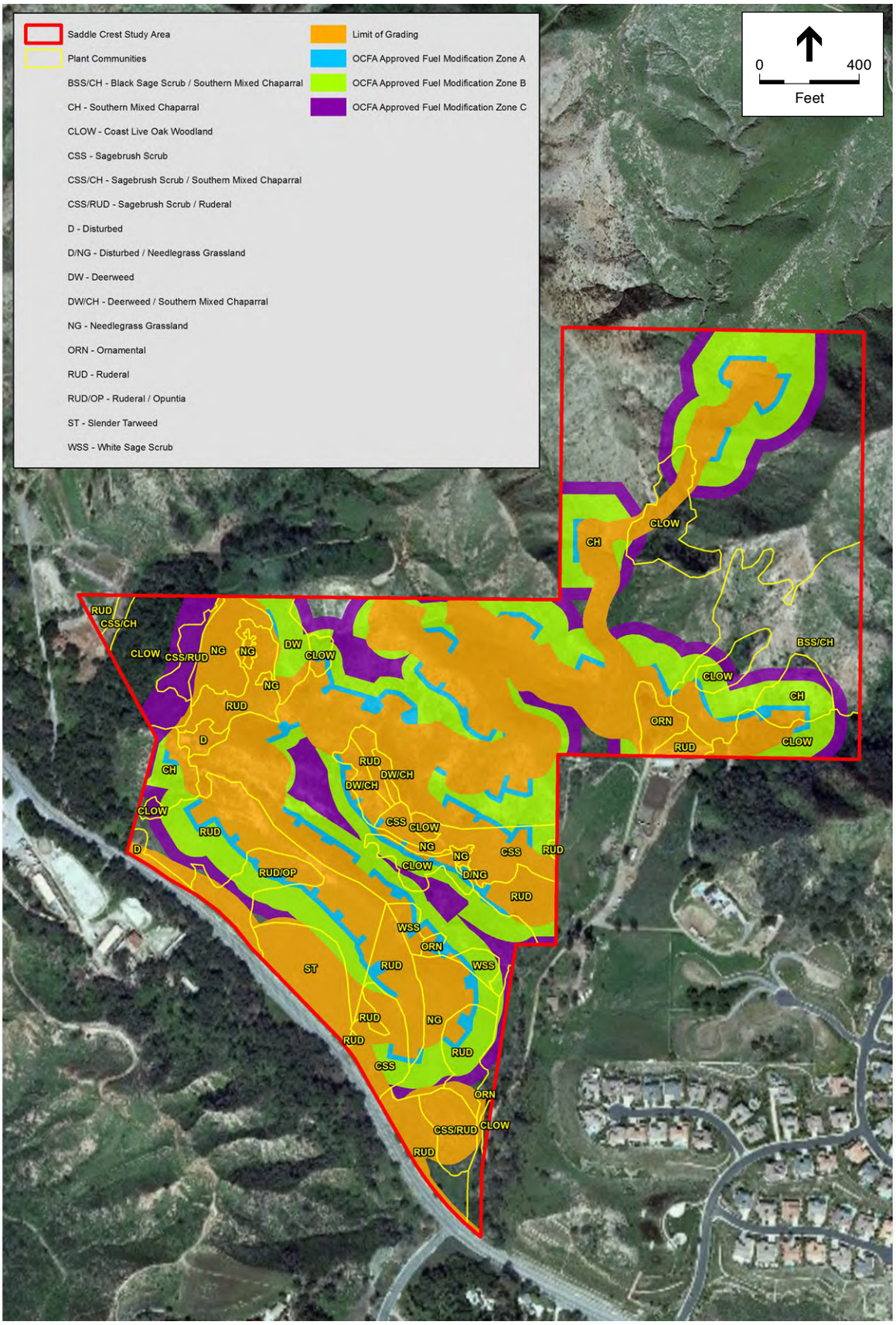
The proposed project would result in impacts to approximately 62.7 acres of plant communities and other areas, of which 12.9 acres are sensitive (refer to Figure 3.3-6) and Table 3.3-6. Impacts to sensitive plant communities includes 2.3 acres of coast live oak woodland (including 0.7 acre due to fuel modification), 3.8 acres of sagebrush scrub, 1.9 acres of sagebrush scrub/ruderal (including 0.6 acre due to fuel modification), 4.1 acres of needlegrass grassland (including 0.1 acre due to fuel modification), and 0.8 acre of white sage scrub. White sage scrub and needlegrass grassland are CNDDB high inventory priority communities and are considered sensitive due to their decline in the region and/or their ability to support sensitive species; therefore, impacts to these communities are considered potentially significant. Coast live oak woodland is not a CNDDB sensitive community; however, it is analyzed because of its significance as a resource under the F/TSP. Sagebrush scrub and sagebrush scrub/ruderal are habitats of concern because they are regulated communities under the NCCP/HCP and support the coastal California gnatcatcher, as well as other sensitive species of plants and wildlife. Impacts to these habitats are considered potentially significant; however, mitigation measures and project design features have been included to reduce potential impacts. Mitigation Measure MM 3.3-2 includes payment into the NCCP/HCP in-lieu fee program, off-site restoration/enhancement and preparation of a habitat restoration plan to mitigate impacts to sensitive communities. Mitigation Measure 3.3-4 would protect coast live oaks within the project site, including those located within fuel modification zones. Project Design Feature PDF-1 would preserve approximately 51 acres that includes sensitive natural communities. In addition, Project Design Features PDF-7, PDF-8, PDF-44, PDF-45, and PDF-46 which include a Tree Management and Preservation Plan, protection from invasive species, protection of oak trees, and compliance with Construction Minimization Measures indentified in the NCCP/HCP would also reduce impacts to sensitive natural communities to a less than significant level.

Impact Determination: Construction of the proposed project would result in significant impacts to sensitive natural communities, including coast live oak, sagebrush scrub, sagebrush scrub/ruderal, needlegrass, and white sage scrub. However, mitigation measures and project design features have been included to reduce potential impacts. Mitigation Measure MM 3.3-2 includes payment into the NCCP/HCP in-lieu fee program, off-site restoration/enhancement and preparation of a habitat restoration plan to mitigate impacts to sensitive communities. Mitigation Measure MM 3.3-4 would protect coast live oaks within the project site, including those located within fuel modification zones. Project Design Feature PDF-1 would preserve approximately 51 acres that includes sensitive natural communities. In addition, Project Design Features PDF-7, PDF-8, PDF-44, PDF-45 and PDF-46 which include a Tree Management and Preservation Plan, protection from invasive species, protection of oak trees, and compliance with Construction Minimization Measures indentified in the NCCP/HCP would also reduce impacts to sensitive natural communities to a less than significant level.

Non-Clustered Scenario

Construction

The non-clustered scenario would result in impacts to 84.8 acres of plant communities and other areas, of which 15.9 acres are sensitive (refer to **Figure 3.3-7** and Table 3.3-6); therefore, impacts associated with the non-clustered scenario are incrementally larger than those of the proposed project. Impacts to sensitive plant communities includes 5.7 acres of coast live oak woodland (including 3.8 acres due to fuel modification), 3.8 acres of sagebrush scrub (including 0.8 acre due to fuel modification), 1.7 acres of sagebrush scrub/ruderal (including 0.6 acre due to fuel modification), 4.0 acres of needlegrass grassland (including 0.9 acre due to fuel modification), and 0.7 acre of white sage scrub (including 0.5 acre due to fuel modification). Under the non-clustered scenario, impacts would occur to oak woodlands in the northeastern portion of the study area, which are avoided and preserved under the proposed project. Impacts to these habitats are considered potentially significant. However, mitigation measures and project design features have been included to reduce potential impacts. Mitigation Measure MM 3.3-2 includes payment into the NCCP/HCP in-lieu fee program, off-site restoration/enhancement and preparation of a habitat restoration plan to mitigate impacts to sensitive communities. Mitigation Measure MM 3.3-4 would protect cost live oaks within the project site, including those located within fuel modification zones. In addition, Project Design Features PDF-7, PDF-8, PDF-44, PDF-45, and PDF-46 which include a Tree Management and Preservation Plan, protection from invasive species, protection of oak trees, and compliance with Construction Minimization Measures indentified in the NCCP/HCP would also reduce impacts to sensitive natural communities to a less than significant level. However, impacts would be greater than those associated with the proposed project.



SOURCE: Aerial Express, 2009; Hunsaker, 2012; PCR Services Corporation, 2012.

Figure 3.3-7
Impacts to Plant Communities
(Non-Clustered Scenario)

Operations

With the exception of fuel modification impacts, no anticipated impacts to riparian habitat or other sensitive natural communities are expected as a result of operation of the non-clustered scenario. Fuel modification practices would result in impacts to 6.6 acres of sensitive natural plant communities, which includes 3.8 acres of coast live oak, 0.8 acre of sagebrush scrub, 0.6 acre of sagebrush scrub/ruderal, 0.9 acre of needlegrass grassland, and 0.5 acre of white sage scrub. Mitigation Measure MM 3.3-2 includes payment into the NCCP/HCP in-lieu fee program, off-site restoration/enhancement and preparation of a habitat restoration plan to mitigate impacts to sensitive communities. Mitigation Measure MM 3.3-4 would protect coast live oaks within the project site, including those located within fuel modification zones. In addition, Project Design Features PDF-7, PDF-8, PDF-44, PDF-45, and PDF-46 which include a Tree Management and Preservation Plan, protection from invasive species, protection of oak trees, and compliance with Construction Minimization Measures indentified in the NCCP/HCP would also reduce impacts to sensitive natural communities. Although impacts to sensitive plant communities are greater compared to the proposed project, impacts would be less than significant with the implementation of mitigation and project design features.

Impact Determination: Construction of the non-clustered scenario would result in significant impacts to sensitive natural communities, including coast live oak, sagebrush scrub, sagebrush scrub/ruderal, needlegrass, and white sage scrub. The project would include Project Design Feature PDF-46, which addresses impacts to, and preservation of, coastal sage scrub vegetation, including consistency with the NCCP/HCP; and PDF-7 and PDF-8 which would lessen impacts on oak woodlands. Implementation of Mitigation Measures MM 3.3-2, MM 3.3-4 and Project Design Features PDF-7, PDF-8, PDF-44, PDF-45, and PDF-46 would also ensure that impacts to special-status species and sensitive habitat are less than significant. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation.

Impact 3.3.3: Effect on federally protected wetlands.

Significance Standard for Impact 3.3.3: Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Proposed Project

Construction

The creeks located on the project site total 8,342 feet (0.28 acre) of USACOE jurisdiction, 9,402 feet (0.31 acre) of RWQCB jurisdiction and 7.87 acres of CDFG jurisdiction. USACOE and RWQCB jurisdiction is the same; therefore, approximately 0.13 acre of USACOE jurisdictional "waters of the U.S." and of RWQCB jurisdictional "waters of the State" comprising 3,405 linear

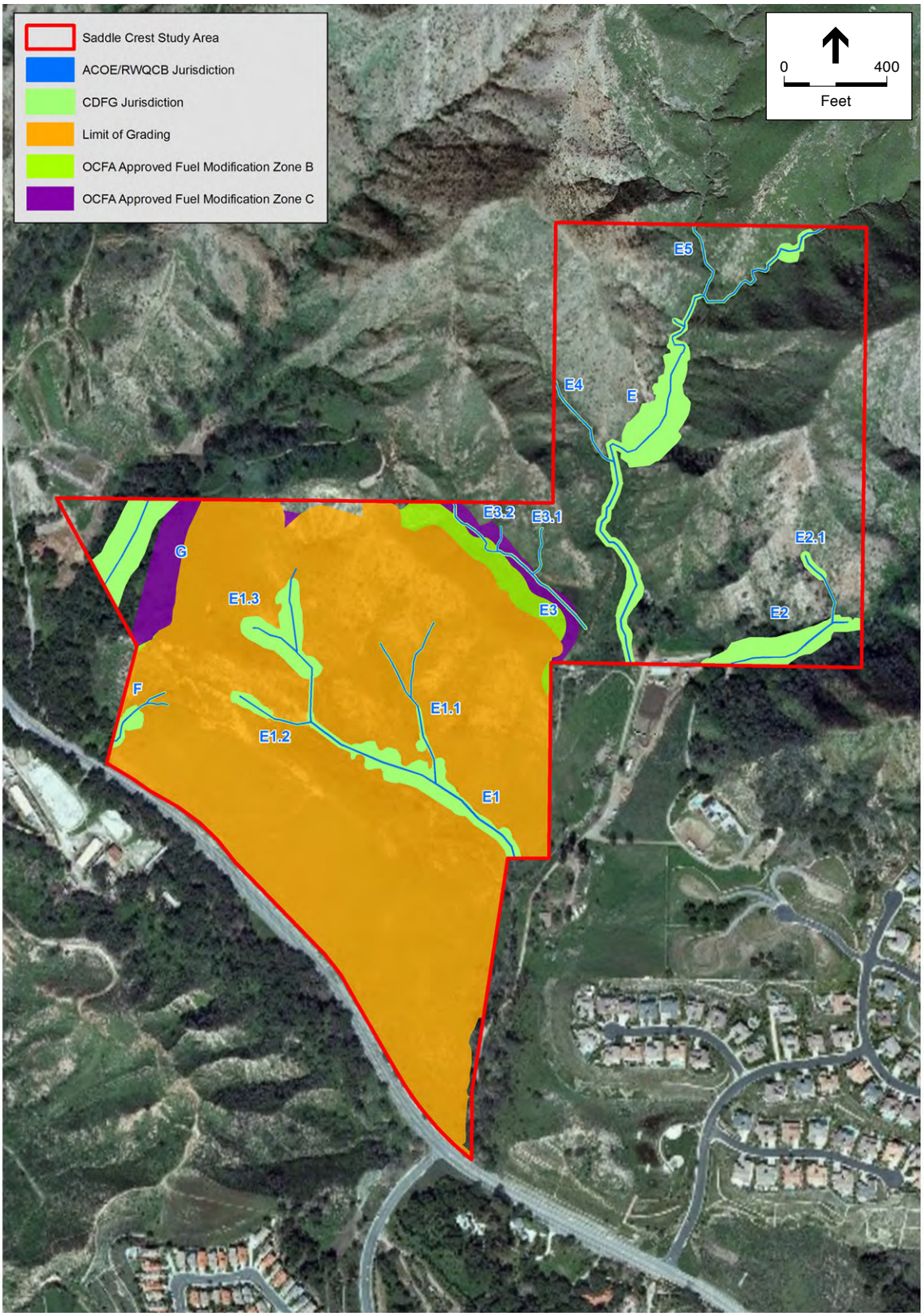
feet of streambed would be impacted by the proposed project, and 2.81 acres (including 0.08 acre due to fuel modification) of CDFG jurisdictional streambed and associated riparian habitat comprising 4,218 linear feet of streambed would be impacted by the proposed project (see **Figure 3.3-8**).

However, approximately 4,937 linear feet of USACOE/RWQCB and 5,184 linear feet of CDFG jurisdictional streambed would be avoided through dedication of approximately 51 acres located in the northern portion of the project site (PDF-1). To mitigate for impacts to jurisdictional waters, the applicant would adopt measures in consultation with the regulating agencies (USACOE, CDFG, and RWQCB) that include limiting construction within on-site drainages to periods when the drainages are dry, implementation of on- and off-site replacement and/or restoration/enhancement, and preparation of a restoration plan. Details of these mitigation requirements are described under Mitigation Measure MM 3.3-3. The proposed project would not result in a net loss of a significant environmental value associated with federally protected wetlands, degradation of water quality, or diminish hydrological conditions. Because the ephemeral creeks located on the project does not support a riparian plant community, the proposed project would not impact any wetland-dependant animal or plant species, substantially reduce wildlife access, use, and dispersal to perennial or intermittent riparian (wetland) systems, because none are present. Mitigation Measure MM 3.3-3 would reduce impacts on federally- and state-protected wetlands to a less than significant level.

Operations

The proposed project incorporates a water quality basin, which would also function as a detention basin capturing runoff generated from the project site. With project build-out, there would be no increase in the 100-year peak discharge from existing conditions; thus, no scour or erosion as a result of runoff generated from the proposed project is anticipated in the drainage system downstream. Rather, there would be a slight decrease in the flow rate of 2.4 cubic feet per second (cfs) based on the 100-year peak flow; therefore, the overall volume of water would remain about the same. There would be no dry weather discharges from the detention basin and the basin has been designed to allow for controlled releases of water during and after storm events when water would naturally flow in the drainage. The proposed project avoids the majority of the drainages on-site leaving them unaltered in their currently existing state; however, it is anticipated that with project build-out, water leaving the site would be similar to existing conditions, and no significant effects to the downstream hydrology and habitat within Aliso Creek are expected to occur.

Impact Determination: Construction of the proposed project would result in impacts to jurisdictional streambed and riparian habitat. However, approximately 4,937 linear feet of USACOE/RWQCB and 5,184 linear feet of CDFG jurisdictional streambed would be avoided through dedication of approximately 51 acres located in the northern portion of the site (PDF-1).



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SOURCE: Aerial Express, 2009; Hunsaker, 2012; PCR Services Corporation, 2012.

Figure 3.3-8
Impacts to Jurisdictional Features
(Proposed Project)

As required under Mitigation Measure MM 3.3-3, the applicant will adopt measures in consultation with the regulating agencies (USACOE, CDFG, and RWQCB) that include limiting construction within on-site drainages to periods when the drainages are dry, implementation of on- and off-site replacement and/or restoration/enhancement, and preparation of a restoration plan. Mitigation and project design features would reduce impacts on federally- and state-protected wetlands to a less than significant level.

Non-Clustered Scenario

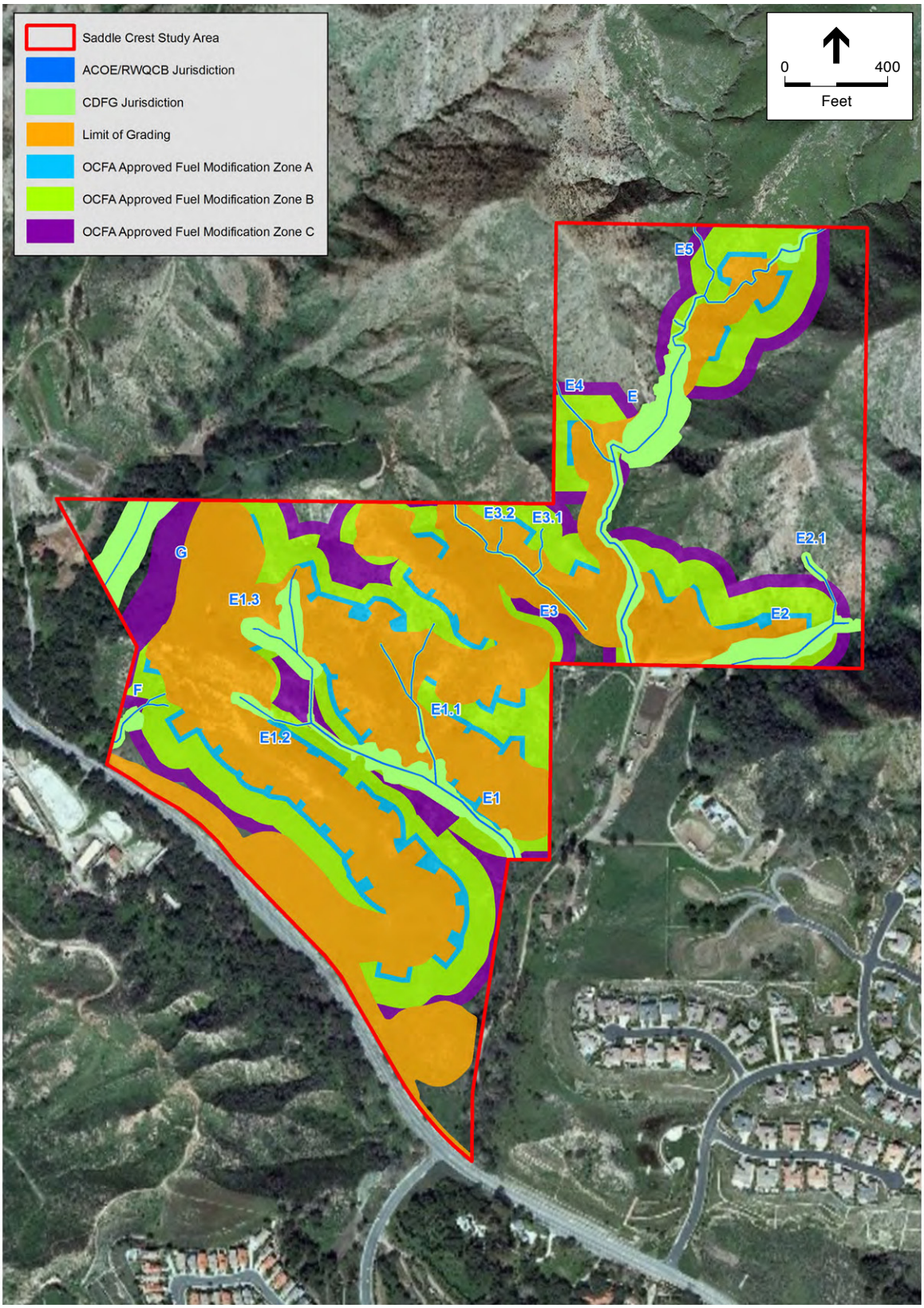
Construction

With implementation of the non-clustered scenario, impacts would occur to the main drainage running through the northwestern portion of the project site (”Drainage E”). As depicted in **Figure 3.3-9**, USACOE and RWQCB jurisdiction is the same; therefore, approximately 0.08 acre of USACOE jurisdictional “waters of the U.S.” and RWQCB jurisdictional “waters of the State” would be impacted, and 5.77 acres of CDFG jurisdictional streambed and associated riparian habitat, which includes the total acreage of impacts associated with ongoing fuel modification. These jurisdictional features comprise 8,006 linear feet of streambed that would be impacted under the non-clustered scenario. A total of 1,396 linear feet of streambed would be avoided. Impacts to jurisdictional features are considered potentially significant. Mitigation Measure MM 3.3-3, which would require that the applicant adopt measures in consultation with the regulating agencies (USACOE, CDFG, and RWQCB) that include limiting construction within on-site drainages to periods when the drainages are dry, implementation of on- and off-site replacement and/or restoration/enhancement, and preparation of a restoration plan would reduce potential impacts to a less than significant level. Construction related impacts to jurisdictional resources under the non-clustered scenario are greater than the proposed project.

Operations

The non-clustered scenario would include seven water quality basins, which would also function as a detention basin capturing runoff generated from the project site. With project build-out, there would be no increase in the 100-year peak discharge from existing; thus, no scour or erosion as a result of runoff generated from the proposed project is anticipated in the drainage system downstream. There would be a slight decrease in the flow rate of 2.4 cfs based on the 100-year peak flow; therefore, the overall volume of water would remain about the same. There would be no dry weather discharges from the basins would be designed to allow for controlled releases of water during and after storm events when water would naturally flow in the drainage.

Unlike the proposed project, the non-clustered scenario would impact a portion of the drainage system at the northeast portion of the project area, which would alter a portion of this drainage system. Therefore, with project build-out, water leaving the site would not be similar to existing conditions, and effects to the downstream hydrology and habitat within Aliso Creek may occur. This would include a portion of Drainage E and Tributaries E4, E5, E2-1, E3-1 and E3-2.



SOURCE: Aerial Express, 2009; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-9
Impacts to Jurisdictional Features
(Non-Clustered Scenario)

However, under the non-clustered scenario, detention basins and outlet structures would be required to mitigate the increase in runoff (volume and velocity) at discharge points to be consistent with the site's natural drainage condition. Additionally, other in-stream drainage devices throughout the project site such as check dams, drop structures, rip rap, and energy dissipaters may need to be used to mitigate adverse impacts to downstream hydrology and habitat within Aliso Creek.

Under the non-clustered scenario, approximately 3.07 acres of CDFG jurisdictional streambed and associated riparian habitat would be impacted as a result of fuel modification under the non-clustered scenario. Fuel modification would not result in impacts to USACOE or RWQCB regulated waters. Mitigation Measure MM 3.3-3 requires limitations on the timing for which construction can occur; requires on- and off-site replacement and/or restoration/enhancement; and, the preparation of a restoration plan. Implementation of Mitigation Measure MM 3.3-3 would reduce potential impacts to a less than significant level.

Impact Determination: Construction of the non-clustered scenario would result in impacts to jurisdictional streambed and riparian habitat. Construction of the non-clustered scenario would result in impacts to jurisdictional streambed and riparian habitat. As required under Mitigation Measure MM 3.3-3, the applicant will adopt measures in consultation with the regulating agencies (USACOE, CDFG, and RWQCB) that include limiting construction within on-site drainages to periods when the drainages are dry, implementation of on- and off-site replacement and/or restoration/enhancement, and preparation of a restoration plan. Mitigation Measure MM 3.3-3 would reduce impacts on federally- and state-protected wetlands to a less than significant level. Impacts to jurisdictional resources under the non-clustered scenario would be greater than the proposed project.

Impact 3.3.4: Interfere with movement of fish or wildlife species, wildlife corridors, or wildlife nurseries.

Significance Standard for Impact 3.3.4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Proposed Project

Construction

A site specific analysis of the wildlife movement corridor identified in the F/TSP that is present within the study area was conducted (PCR Services Corporation, 2012b). As a result of this analysis, the wildlife movement corridor was extrapolated out to encompass all areas of the oak woodland that are associated with the drainage along the western edge of the study area that is providing cover for wildlife movement. This wildlife corridor does not support a known wildlife nursery site, nor does it support fish species, which includes the on-site ephemeral drainages.

As shown in **Figure 3.3-10**, the development footprint [which includes the limit of grading (which includes fuel modification zone A) and fuel modification zone B (irrigation and vegetation clearing zone)] for the proposed project are outside of the wildlife movement corridor identified in the F/TSP (and refined by PCR Services Corporation, 2012b). The proposed project's development footprint is clustered adjacent to Santiago Canyon Road and within an area that is near the existing development of Santiago Canyon Estates to the east/southeast. Development for the proposed project would not encroach within the boundaries of the wildlife movement corridor due to the proposed 50-foot setback.

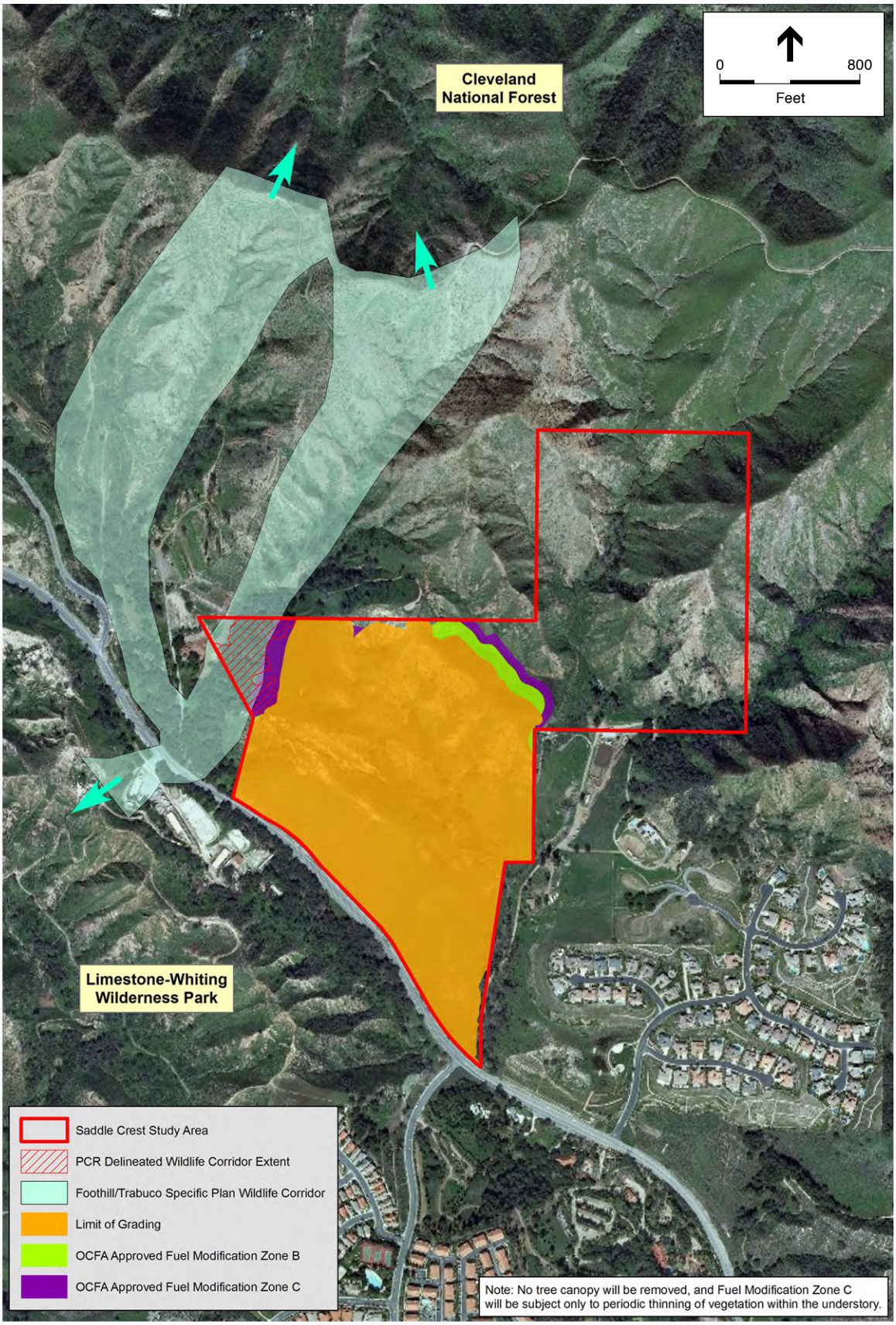
The corridor was mapped based on ground-truthing and fine-scale mapping of vegetation cover provided by the coast live oak woodland canopy. This map was compared to the F/TSP GIS layers of the wildlife corridor provided. At its narrowest point, the corridor is approximately 250 feet in width. In accordance with the F/TSP, the required corridor width is a minimum of 400 feet. In an effort to minimize edge effects to the wildlife corridor, the proposed project would avoid a total width of 400 feet, including and surrounding the wildlife corridor. Thus, the corridor width meets and exceeds the width recommended in the literature by corridor experts (PCR Services Corporation, 2012b).

Construction activities could result in indirect impacts to the wildlife corridor through increased human presence, trash and debris, and construction-related noises. However, implementation of Mitigation Measure MM 3.3-5 includes measures for reducing construction-related noises on the wildlife corridor, locating equipment staging areas as far from the corridor as feasible, and limiting construction to daylight hours only. Impact to the wildlife movement corridor would be less than significant following implementation of Mitigation Measure MM 3.3-5.

Operations

As currently proposed, the project's fuel modification zone C would potentially impact the corridor by requiring some thinning of 0.8 acre of the understory of the coast live oak woodland community that comprises the corridor. This could result in a long-term indirect impact to the wildlife movement corridor due to the increased presence of human activity to maintain the fuel modification zone; however, this impact would not be considered significant since thinning would only occur periodically and during the day when mule deer and mountain lion are less active (see Project Design Feature PDF-42). The ongoing removal of vegetation from thinning practices would not reduce the vegetation cover to a point where wildlife would not use the area for passage, foraging and shelter.

Other indirect impacts of the proposed project, such as lighting, roads and other disturbances, may collectively deter wildlife from using a corridor. Indirect impacts include an increase in the ambient lighting within the area due to higher nighttime light levels from the adjacent roads and development. As the natural habitats within the area are further constrained, increased development can pose additional threats to the corridor. The density of the proposed development would be a deterrent to more secretive wildlife species that avoid areas of development, such as mountain lions.



SOURCE: Aerial Express, 2009; Foothill/Trabuco Specific Plan, 1991; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-10
Impacts to Wildlife Corridor
(Proposed Project)

Although there is little development to the west of the F/TSP corridor, there is a single ranch on an adjacent property that would somewhat constrain the corridor's western boundary. Additionally, Santiago Canyon Road intersects the corridor to the south and the road serves as a barrier to wildlife movement due to the increased risk of mortality from wildlife being hit by passing cars. As development within the area increases, so does the amount of traffic, which increases the risk of wildlife-vehicle collisions.

Although these indirect impacts may be a deterrent, secretive species such as the mountain lion are still expected to use this corridor since it is an established corridor providing them access from wilderness areas to the north to Limestone-Whiting Wilderness Park to the south. This species is known to travel through unfavorable habitats; however, it has been documented that mountain lions move faster through areas that are less suitable (PCR Services Corporation, 2012b).

All landscaping within a 25-foot buffer of the wildlife corridor would be planted with native plant species, as specified in the F/TSP (a minimum of 50 percent of all shrubs to be planted should be native species) (PDF-6). Project Design Feature PDF-1, which requires approximately 51 acres of the site to be dedicated as open space, would limit the overall extent of disturbances. Plants should be selected from the plant palette contained in Appendix A of the F/TSP. Project Design Features PDF-6, PDF-9, PDF-44, and PDF-49 include the use of native plants in landscape plans. Project Design Feature PDF-42 would be incorporated to ensure that lighting is casted downward and directed away from the wildlife corridor and ambient nighttime light levels are minimized to the maximum extent feasible. Moreover, exterior lighting is not proposed within the 50-foot setback area for the wildlife corridor. Noise standards would follow County Codes and General Plan Policies, which establish thresholds for noises generated from the proposed project site (PDF-43 and MM 3.10-1, see Section 3.10, *Noise*, of this Draft EIR). As specified in the F/TSP, the proposed project would include fencing within the 50-foot setback zone which shall be limited to open fencing (i.e., split rail fencing) and which does not exceed 40 inches in height, measured from the finished grade, in order to allow for the mobility of animals (F/TSP, II.C.2. Resources Overlay Component – Wildlife Corridor, 2.4 Uses/Setback Adjacent to Wildlife Corridor) (PDF-42).

The proposed project has been designed to include approximately 79.8 acres of open space (70 percent of the site) to accommodate existing stands of coast live oak trees and woodland areas, and wildlife movement). Approximately 51 acres of that open space will be offered for dedication to the County and is adjacent to the Cleveland National Forest, providing a forest buffer, which meets a goal of the F/TSP (PDF-1). Mitigation Measure MM 3.3-1C consists of implementing an Environmental Awareness Program to educate residents on the sensitivity of the wildlife corridor and Mitigation Measure MM 3.3-5 requires vegetation thinning practices within the fuel modification to be limited to daylight hours only. Furthermore, this mitigation measure requires a native vegetation buffer to be installed to limit the potential introduction of non-native and/or invasive species in the wildlife corridor from the proposed project. Consistency with the goals of the F/TSP as described above and implementation of Mitigation Measures MM 3.3-1C

and MM 3.3-5 and Project Design Features PDF-6, PDF-9, PDF-42, PDF-44, and PDF-49 would result in less than significant impacts on the adjacent wildlife movement corridor.

Impact Determination: The proposed project could result in direct and indirect impacts to the adjacent wildlife movement corridor. However, consistency with the goals of the F/TSP and implementation of Mitigation Measures 3.3-1C and 3.3-5, and Project Design Features PDF-1, PDF-6, PDF-9, PDF-42, PDF-44, and PDF-49 would reduce potential impacts to less than significant.

Non-Clustered Scenario

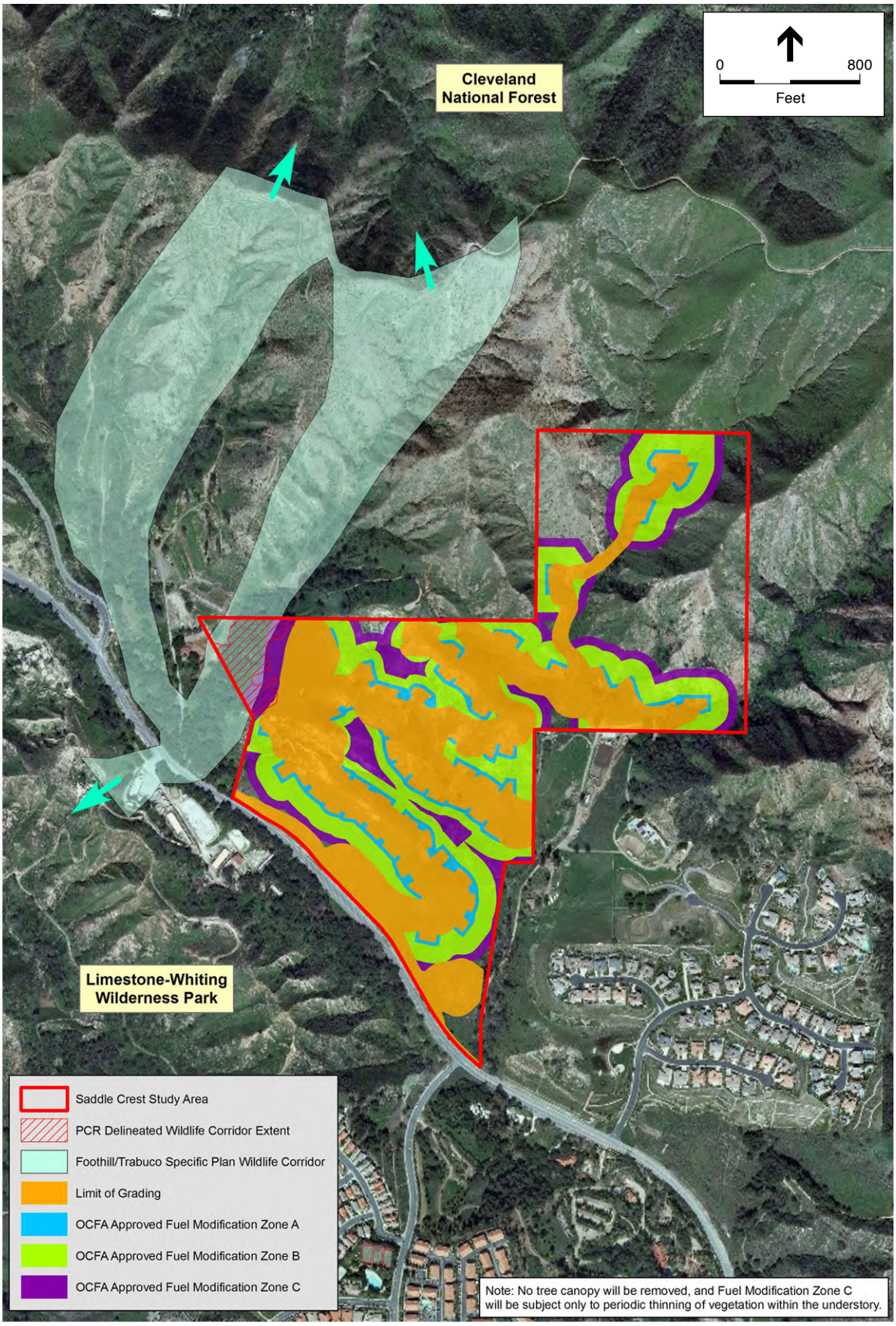
Construction

The general analysis above for the proposed project can be applied to the non-clustered scenario. Impacts to the F/TSP wildlife corridor would be similar for the non-clustered scenario as for the proposed project; except that the non-clustered scenario is spread out over the entire site (**Figure 3.3-11**). Because the non-clustered scenario would have a larger disturbance footprint, especially in the northwestern portion of the site, general wildlife movement through this portion of the site would be impeded under the non-clustered scenario. Development in this northwest portion of the site under the non-clustered scenario would also have an "edge effect" on the undisturbed areas outside of the project area that would otherwise not be affected under the proposed project. Although Project Design Features PDF-6, PDF-9, PDF-42, PDF-44, and PDF-49 would be incorporated to reduce impacts, local wildlife movement would be more restricted under the non-clustered scenario. However, no direct impacts to the wildlife movement corridor are anticipated as a result of the non-clustered scenario, and impacts would be less than significant.

Operations

Although the non-clustered scenario would likely have a greater affect on the local wildlife movement through the site, it would not have any additional indirect impacts to the wildlife corridor other than those mentioned for the proposed project during the operational phase of the non-clustered scenario. The non-clustered scenario would also include Mitigation Measure MM 3.3-1C, which consists of implementing an Environmental Awareness Program to educate residents on the sensitivity of the wildlife corridor, and Mitigation Measure MM 3.3-5, which requires vegetation thinning practices within the fuel modification to be limited to daylight hours only.

Impact Determination: The non-clustered scenario could result in direct and indirect impacts to the adjacent wildlife movement corridor. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance. However, consistency with the goals of the F/TSP and implementation of Mitigation Measures MM 3.3-1C and MM 3.3-5, and Project Design Features PDF-6, PDF-9, PDF-42, PDF-44, and PDF-49 would reduce potential impacts to less than significant.



SOURCE: Aerial Express, 2009; Foothill/Trabuco Specific Plan, 1991; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-11
Impacts to Wildlife Corridor
(Non-Clustered Scenario)

Impact 3.3.5: Conflict with local policies or ordinances protecting biological resources.

Significance Standard for Impact 3.3.5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Proposed Project

Construction

A total of 151 coast live oak trees would be removed due to grading, as well as one blue gum tree (*Eucalyptus globulus*). However, this blue gum tree has a four-inch diameter and is therefore not regulated under the F/TSP (which regulates "any tree exceeding five inches in diameter," as detailed on page III-76 of the F/TSP). A total of 468 coast live oak trees would be preserved on site (76 percent), including 422 within preserved open space areas and 46 within fuel modification zones (see **Figure 3.3-12**). Coast live oaks are regulated under the F/TSP (identified in Exhibit II-4 of the F/TSP); therefore, impacts are considered potentially significant. In accordance with the F/TSP and as indicated under Project Design Feature PDF-7, a Tree Management and Preservation Plan was prepared, which meets the conditions of the F/TSP. The Tree Management and Preservation Plan will achieve the following:

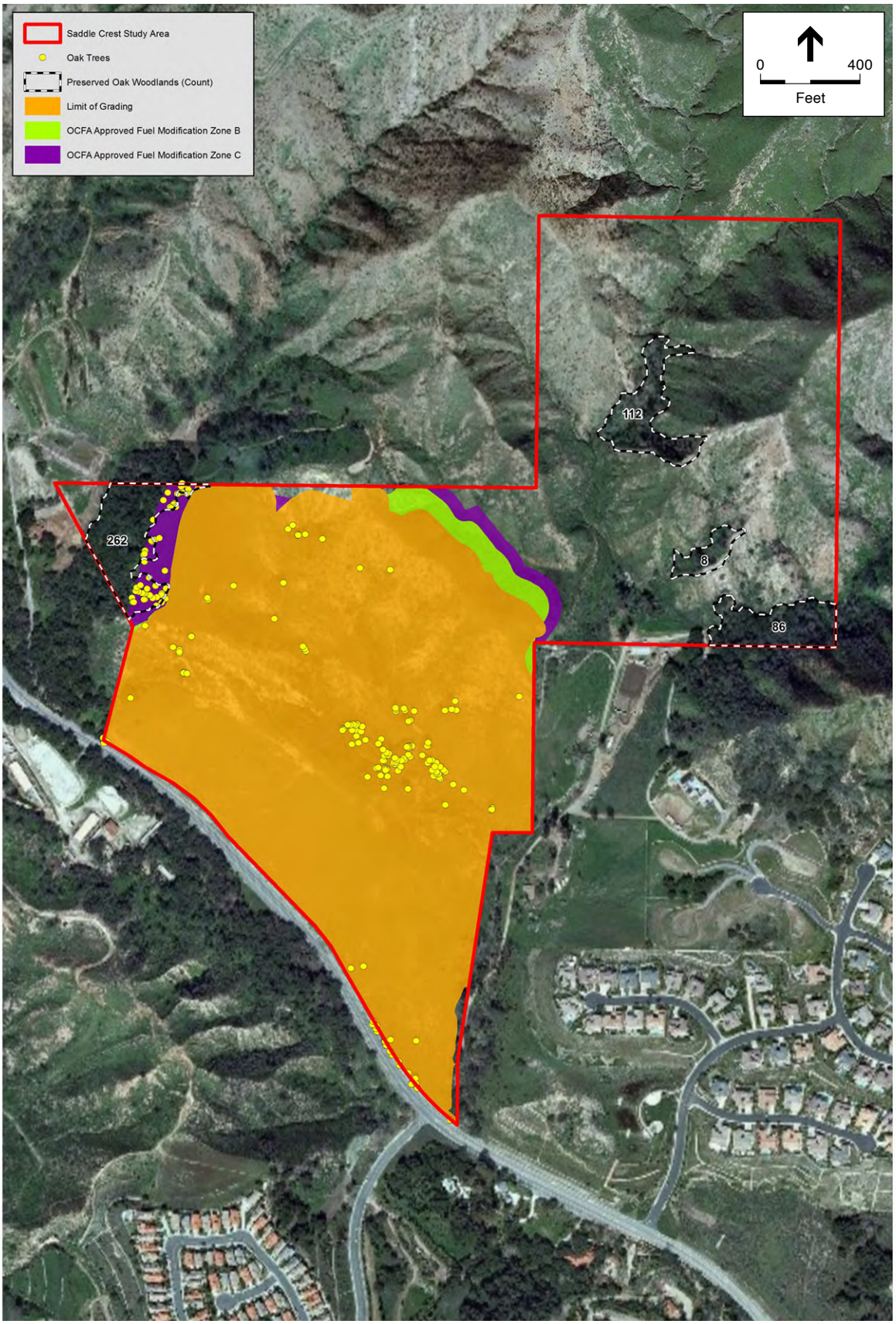
- Identifying all oak trees proposed for removal that are greater than five inches in diameter at 4.5 feet above the existing grade and those which are proposed for removal and the proposed location of replacement trees.

- Identifying any trees suitable for transplanting.

- Trees that cannot be successfully transplanted would be replaced. As specified in the Tree Management and Preservation Plan, any trees that die within a five-year timeframe (monitoring period) would be replaced according to the replacement ratio.

- In the event that all transplanted or replacement trees cannot be feasibly located on the property, an off-site mitigation program has been identified on adjacent land. All replacement and transplanted trees would be located within the Specific Plan Area.

In addition, Project Design Feature PDF-8 includes monitoring of any planted or transplanted oak for a period of seven years to ensure that all performance standards are met and tree plantings are successfully implemented. Project Design Feature PDF-45 requires fencing to be installed to avoid impacts during construction activities. And PDF-1 requires approximately 51 acres of the site to be dedicated as open space, would limit the overall extent of disturbances. Mitigation Measure MM 3.3-4 requires planting of oak trees to replace those oak trees that would be removed or impacted, as well as pruning measures and monitoring. Impacts would be less than significant following implementation of these project design features and Mitigation Measure MM 3.3-4.



SOURCE: Aerial Express, 2009; Dudek, 2010; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-12
Impacts to Oak Trees
(Proposed Project)

Operations

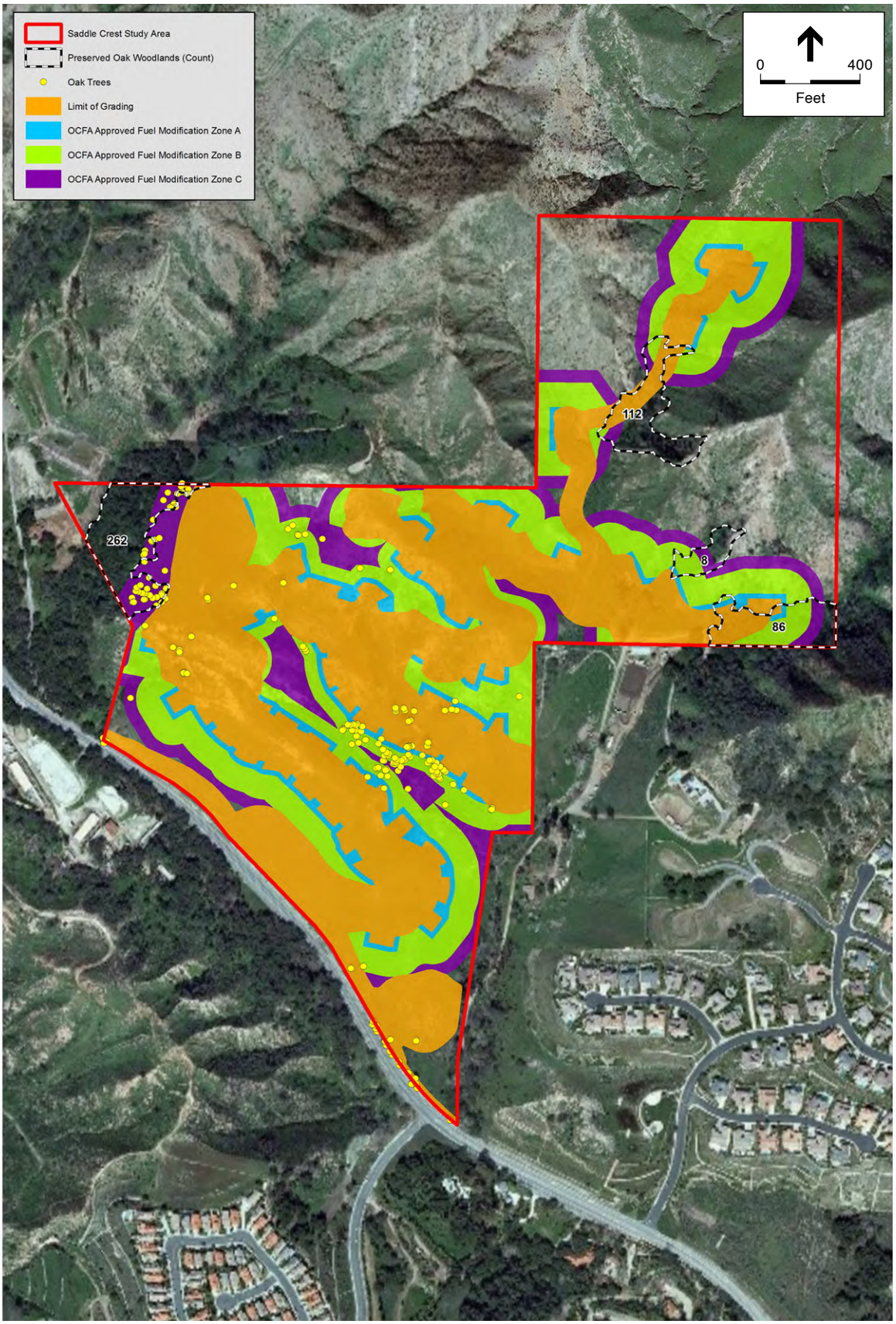
Few impacts on oak trees that would be preserved are expected during the operational phase of the proposed project. Forty-six (46) coast live oak trees would be preserved within the fuel modification area, which may incur impacts in the form of irrigation or pruning for fuel modification purposes. As required by Mitigation Measure MM 3.3-4, coast live oak trees located within the fuel modification zones that require pruning shall comply with OCFA requirements. Under this mitigation measure, trees shall be pruned by a qualified arborist specializing in the management and care of this tree species in consultation with the County Biological Resources Monitor. Further protection of oak trees would be allotted by implementing Project Design Feature PDF-45, which has been developed to ensure that there would be no placement of fill, storage of equipment, or any grading within the dripline of a protected tree. This project design feature also requires that retaining walls be used to protect preserved oaks from surrounding cut and fill, and no surfaces shall be placed within a six-foot radius of oak tree trunks. The conditions outlined in Project Design Feature PDF-45 are also consistent with the goals of the F/TSP. Impacts to oak trees during the operational phase is considered less than significant.

Impact Determination: Impacts to protected trees would be considered a significant impact. Implementation of Mitigation Measure MM 3.3-4 and Project Design Features PDF-1, PDF-7, PDF-8, and PDF-45 as described above would reduce the level of impact on oak trees to a level of less than significant.

Non-Clustered Scenario

Construction

As depicted in **Figure 3.3-13**, approximately 249 coast live oak trees would be removed by the non-clustered scenario. A total of 370 coast live oak trees (60 percent) would be preserved on-site, including 210 trees which would be avoided and 160 trees within the fuel modification areas. Portions of the oak woodlands located on the non-clustered scenario are identified as “receiver areas” for the proposed project’s mitigation outlined in the Saddle Crest Tree Management and Preservation Plan (Dudek, 2011, 2012). Thus, impacts to these oak woodlands may reduce the amount of on-site mitigation area available for the overall impacts to oak trees under the non-clustered scenario. Should the non-clustered scenario be implemented, a Tree Management and Preservation Plan specific to this design would be prepared (see Project Design Features PDF-7 and PDF-8), which would comply with the conditions of the F/TSP. Project Design Feature PDF-8 includes monitoring of introduced and relocated oak trees for a period of seven years to ensure that all performance standards are met and tree plantings are successfully implemented. Mitigation Measure MM 3.3-4 requires replacement trees to mitigate for those trees that would be permanently removed within the project area. Impacts would be less than significant following the implementation of MM 3.3-4 and the Project Design Features PDF-7, PDF-8, and PDF-45.



SOURCE: Aerial Express, 2009; Dudek, 2010; Hunsaker, 2012; PCR Services Corporation, 2012.

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Figure 3.3-13
Impact to Oak Trees
(Non-Clustered Scenario)

Operations

Operational impacts for the non-clustered scenario would be similar as the proposed project. However, a greater number of coast live oak trees are located within the fuel modification or at the edges of grading under the non-clustered scenario (160 oak trees compared to 46 oak trees under the proposed project). As with the proposed project, preserved trees within the fuel modification zone may incur impacts in the form of pruning or irrigation. In accordance with Mitigation Measure MM 3.3-4, coast live oak trees located within the fuel modification zones that require pruning shall comply with OCFA requirements. This mitigation measure requires that trees be pruned by a qualified arborist specializing in the management and care of this tree species in consultation with the County Biological Resources Monitor. Further protection of oak trees would be allotted by implementing Project Design Feature PDF-45, which has been developed to ensure that there would be no placement of fill, storage of equipment, or any grading within the dripline of a protected tree. This project design feature also required that retaining walls be used to protect preserved oaks from surrounding cut and fill, and no surfaces shall be placed within a six-foot radius of oak tree trunks. The conditions outlined in Project Design Feature PDF-45 are also consistent with the goals of the F/TSP. Impacts to oak trees during the operational phase is considered less than significant.

Impact Determination: The non-clustered scenario would conflict with local tree preservation policies, resulting in significant impacts. Implementation of Mitigation Measure MM 3.3-4 and Project Design Features PDF-7, PDF-8, and PDF-45 as described above would reduce the level of impact on oak trees to a level of less than significant. However, impacts would be greater than those associated with the proposed project.

Impact 3.3.6: Conflict with Habitat Conservation Plans, Natural Community Conservation Plans, or other approved plans.

Significance Standard for Impact 3.3.6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Proposed Project

Construction

The proposed project is subject to the goals and requirements outlined in the Central and Coastal NCCP/HCP, and the F/TSP. The goals of the F/TSP are to preserve the rural character of the area and provide a buffer between urban development and the Cleveland National Forest; to preserve significant landform, biological and scenic resources; to ensure at least some development potential on each individual property; to provide for a circulation system and other infrastructure adequate to serve the ultimate level of development permitted; and to provide equestrian and other recreational opportunities (PCR Services Corporation, 2012b). Specific to the analysis of biological resources, the F/TSP's intent is to provide a buffer between urban development and the

Cleveland National Forest, as well as preserve significant landform, biological and scenic resources, particularly significant oak woodlands, riparian areas, and wildlife corridors. While the F/TSP is not a "habitat conservation plan" it does contain a number of provisions which are designed to provide guidance on protection of important habitats and biological resources within the F/TSP area.

As shown through the analysis of impacts to biological resources, the proposed project would cluster residential structures adjacent to existing roads and development in order to minimize the overall extent of grading and fuel modification area impacts, as well as reduce overall fragmentation of surrounding open space areas. The proposed project would not conflict with the provisions of the NCCP/HCP. The analysis of impacts to sensitive species shows that the proposed project would not have any significant impacts to species that that the NCCP/HCP identifies as covered species (see discussion under Impact 3.3.1). Mitigation measures that would reduce impacts to sensitive species, would not conflict with any provisions of the NCCP/HCP.

The proposed project would result in a total of 79.8 acres of open space (70 percent), including 4.2 acres of which are fuel modification areas; 24.6 acres of which would be comprised of revegetated/graded open space areas, the water quality basin, and equestrian trail; and 51 acres of which are undisturbed open space, which would be avoided (PDF-1). The proposed project was designed to completely avoid the wildlife corridor (except for 0.8 acre of fuel modification zone C) along the western portion of the study area. Fuel modification impacts would create a long-term indirect impact to the wildlife movement corridor due to the increased presence of human activity to consistently maintain the fuel modification zone; however, this impact is not expected to be significant since thinning would only occur periodically and likely during the day when wildlife are less active (see Project Design Feature PDF-45 and Mitigation Measure MM 3.3-4). Additionally, the F/TSP states that "*the primary intended uses of the designated wildlife corridors shall be wildlife movement and provision of habitat. Other permitted uses…shall be allowed only if they are not detrimental to the primary use*." Although fuel modification is not specified in the F/TSP as a permitted use, it would have a similar or lesser impact than those permitted uses that are provided for (e.g., passive recreation, roads, recreational trails, utilities/pipelines, etc.), and is not anticipated to conflict with the primary use. In addition, the proposed project was designed to comply with the required 50-foot setback zone surrounding the wildlife corridor, in accordance with the F/TSP, and all landscaping within a 25-foot buffer of the wildlife corridor will be planted with native plant species, as specified in the F/TSP (PDF-42, PDF-44, and PDF-9). Approximately 80 percent of coast live oak trees would be preserved on-site (including 425 avoided trees and 46 within fuel modification zones) and those coast live oak trees which are impacted would be mitigated as detailed in the Saddle Crest Tree Management and Preservation Plan prepared (Dudek, 2011) (PDF-7, PDF-8, and MM 3.3-4). The proposed project would also completely avoid impacts to a major streambed (Drainage E). Project Design Feature PDF-1 includes the preservation of 70 acres of open space that would provide an open space buffer between the proposed development and the Cleveland National Forest. Approximately 51 acres of that open space would be offered for dedication to the County and is adjacent to the Cleveland National Forest, providing a forest buffer, which meets a goal of the F/TSP.

The proposed project takes into consideration the focus on the preservation of biological diversity that is consistent with current biological resource planning and conservation strategies, as well as the biological goals and objectives of the F/TSP to preserve and minimize impacts on significant regional resources (i.e., wildlife corridors, oak woodlands, and streambeds).

Operations

The proposed project clusters residential structures adjacent to existing roads and development in order to minimize the overall disturbance footprint and to reduce the overall fragmentation of surrounding open space areas. Furthermore, the proposed project complies with the required 50-foot setback zone surrounding the wildlife corridor, in accordance with the F/TSP, and all landscaping within a 25-foot buffer of the wildlife corridor would be planted with native plant species, as specified in the F/TSP as well as in Project Design Features PDF-6, PDF-9, PDF-44, and PDF-49. The clustered design and included setbacks of the proposed project would provide an open space buffer between the proposed development and the Cleveland National Forest.

The clustered design of the proposed project is also consistent with the biological goals and objectives of the F/TSP to preserve and minimize impacts on significant regional resources (i.e., wildlife corridors, oak woodlands, and streambeds). Project Design Feature PDF-46 has been developed to ensure consistency with these plans by requiring the project to implement several specific avoidance measures for preserving and protecting the sensitive biological resources on the project site, and Project Design Features PDF-7 and PDF-8 would be implemented to address proposed impacts to protected trees and to meet the goals of the F/TSP. Therefore, the operation of the proposed project would not be in conflict with the F/TSP or NCCP/HCP and impacts would be considered less than significant.

Impact Determination: The proposed project could conflict with applicable land use plans and policies (particularly the County of Orange General Plan and F/TSP) related to open space and biological resources, which have been adopted for the purpose of avoiding or mitigating an environmental effect, as well as the conditions set forth in the Central and Coastal Subregion NCCP/HCP. However, Project Design Feature PDF-46 has been developed to ensure consistency with these plans by requiring the project to implement several specific avoidance measures for preserving and protecting the sensitive biological resources on the project site, and would reduce impacts to less than significant. Along with PDF-46, PDF-6 through PDF-9, PDF-44 through PDF-46, and PDF-49 would reduce the level of impact to less than significant.

Non-Clustered Scenario

The non-clustered scenario follows the F/TSP guidelines of conforming to the rural character of the area with a sprawling development with a greater overall impact area for grading and fuel modification areas. Fuel modification impacts would create a long-term indirect impact to the wildlife movement corridor due to the increased presence of human activity to consistently maintain the fuel modification zone. This impact would be lessened with implementation of Project Design Feature PDF-45 and Mitigation Measure MM 3.3-4. The non-clustered scenario would result in a greater overall impact area for grading and fuel modification areas. In

comparison, the non-clustered scenario will result in a total of 75.3 acres of open space (66 percent). The amount of undisturbed, contiguous open space is substantially reduced with the non-clustered scenario, and the overall development footprint associated with the non-clustered scenario is greater than the proposed project due to a much larger fuel modification zone and sprawling development plan. Thus, the overall fragmentation of the surrounding open space is increased and overall impacts to biological resources are greater than the proposed project (i.e., particularly associated with Drainage E and oak woodlands which are avoided by the proposed project). Inclusion of PDF-6 though PDF-9, PDF-44, PDF-45, and PDF-49 would reduce the level impact, however, impacts would be less than significant. It is worth noting that the non-clustered scenario would result in greater impacts to open space when compared to the proposed project.

Impact Determination: The non-clustered scenario would be in a conflict with the NCCP/HCP, due to the non-clustered design that would result in greater impacts to previously undisturbed habitats (i.e., coastal sage scrub and oak woodland). However, the amount of open space that would be preserved (66 percent) meets the goals of the F/TSP and NCCP/HCP. The non-clustered scenario would include implementation of Mitigation Measure MM 3.3-4, and Project Design Features PDF-6 through PDF-9, PDF-44 though PDF-46, and PDF-49. Impacts would be less than significant.

3.3.6 Cumulative Impacts

Cumulative impacts are defined as the direct and indirect effects of the proposed project or non-clustered scenario, which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of other projects in the area, would be considered significant. Other past, present, and reasonably foreseeable probable future projects would have similar impacts to the proposed project and non-clustered scenario. CEQA deems a cumulative impact analysis to be adequate if a list of projects is included in the EIR or the project is consistent with an adopted general, specific, master, or comparable programmatic plan (*CEQA Guidelines* Section 15130(b)(1)(B)). CEQA also states that no further cumulative impact analysis is necessary for impacts of a project consistent with an adopted general, specific, master, or comparable programmatic plan (*CEQA Guidelines* Section 15130(d)).

In light of these guidelines, study area is within the Central Subregion of the Central and Coastal NCCP/HCP. The NCCP/HCP Reserve System design has set aside approximately 37,000 acres within the NCCP/HCP Reserve for long-term management. By preserving large habitat blocks and maintaining connectivity, the NCCP/HCP Reserve System has minimized the cumulative impacts of projects in the region to allow for the protection of natural communities and species while allowing a reasonable amount of economic development in the region.

Although the majority of the study area lies within the Congressional boundaries of the Cleveland National Forest and therefore does not receive coverage under the NCCP/HCP, the project site is

within the NCCP/HCP plan area, and is therefore analyzed in this EIR in the context of the NCCP/HCCP as part of a cumulative impacts analysis on biological resources within the region. The NCCP/HCP authorizes "take" of 39 "Identified Species" of plants and wildlife to the extent take authorization may be required for those species under the state or federal endangered species acts.

The NCCP/HCP addresses the protection and management of coastal sage scrub habitat and coastal sage scrub-obligate species, and other covered habitats and species, and mitigates anticipated impacts to those habitats and species, on a programmatic, sub-regional level, rather than on a project-by-project, single species basis. The 37,000-acre NCCP/HCP Reserve System, adaptive management program, and other measures of the NCCP/HCP were determined to fully mitigate "take" of these species and habitats, and minimize the cumulative impacts of proposed projects within authorized take lands. Conditionally covered species are also authorized for "take" so long as the specific conditions (e.g., mitigation measures) outlined in the NCCP/HCP are implemented.

The mitigation included for the proposed project and non-clustered scenario is similar to the NCCP/HCP requirements, even for those portions of the project site that are not covered under the NCCP/HCP. Thus, all direct, indirect, and cumulative impacts under CEQA and NEPA to the covered habitats and to any of the Identified Species resulting from development are fully mitigated.

The proposed project and the non-clustered scenario would impact some special-status species that are not identified species covered by the NCCP/HCP. In addition to those habitats and species that are covered by the NCCP/HCP, the 37,000 acre Reserve preserves a variety of other natural communities within the region, which provide habitat for a diversity of plant and wildlife species, including other special-status species. Thus, the Reserve preserves large habitat blocks to support these species as well as to maintain connectivity between open space areas within the region.[3]

Proposed Project

The proposed project would cluster residential structures adjacent to existing roads and development in order to minimize the overall extent of grading and fuel modification area impacts as well as reducing fragmentation to surrounding open space areas. The proposed development plan will result in a total of 79.8 acres of open space (70 percent), including 4.2

[3] It should be noted that the Saddle Creek North and South properties (formerly owned by the applicant, and formerly a part of the combined Saddle Creek and Saddle Crest Projects) are to be preserved for conservation in perpetuity. The combined Saddle Creek and Saddle Crest Projects were scaled back substantially in order to transfer the Saddle Creek North and South properties for conservation. These conservation areas contribute valuable habitat that provides connectivity between the Central and Coastal and Southern Subregions of the County of Orange NCCP/HCP. The Southern NCCP/HCP was never adopted; the USFWS signed off on it, but CDFG did not, so the plan is an HCP that covers the take of federally listed species only (i.e., addresses federal Endangered Species Act only) for those participating landowners. Participating landowners include the County of Orange, Rancho Mission Viejo, and Santa Margarita Water District. It should be noted, although the project site is in proximity to the Southern Subregion, it is not located within the Southern Subregion. The project site is within the Central Subregion of the Central and Coastal NCCP/HCP.

acres of which are fuel modification areas; 24.6 acres of which would be comprised of revegetated/graded open space areas, the water quality basin, and equestrian trail; and approximately 51 acres of which are undisturbed open space which would be avoided. In addition, implementation of the proposed project would provide an open space buffer between the proposed development and the Cleveland National Forest, which would be consistent with the goals and objectives and the F/TSP. The proposed project also takes into consideration the focus on the preservation of biological diversity that is consistent with current biological resource planning and conservation strategies outlined in the NCCP/HCP, and cumulative impacts would be less than significant.

Non-Clustered Scenario

The non-clustered scenario would result in a greater overall impact area for grading and fuel modification areas, as compared to the proposed project. In comparison, the non-clustered scenario would result in a total of 75.4 acres of open space (66 percent), including 38.2 acres of which are fuel modification areas, approximately 8.7 acres of which would be comprised of revegetated/graded open space, and 28.4 acres of which are undisturbed open space which would be avoided. The amount of undisturbed open space is substantially reduced with the non-clustered scenario, and the overall development footprint associated with the non-clustered scenario would be greater than the proposed project due to a much larger fuel modification zone and sprawling development plan.

Although, the overall fragmentation of the surrounding open space is increased and overall impacts to biological resources would greater than the proposed project (i.e., particularly associated with Drainage E and oak woodlands which are avoided by the proposed project), impacts would be less than significant.

Impact Determination: The project design features and mitigation measures described in this section (i.e., Section 3.3) have been developed to reduce the project's level of impact to on-site and surrounding sensitive biological resources. These project design features and mitigation measures enable the proposed project and non-clustered scenario to be consistent the provisions of the F/TSP and NCCP/HCP, which lessen the amount of disturbance to not only the project site, but also on the surrounding environment. Therefore, it is concluded that the proposed project and non-clustered alternative would not contribute to a significant cumulative impact to sensitive biological resources within the cumulative area.

3.3.7 Mitigation Measures

As discussed in Section 2.1, *Project Background*, of this Draft EIR the former Saddle Creek North and South properties (formerly owned by the applicant) are to be preserved for conservation in perpetuity. These areas contribute valuable habitat that provides connectivity between the Central and Coastal and Southern Subregions of the County of Orange NCCP/HCP, as well as the Cleveland National Forest and O'Neill Regional Park. The applicant has retained the rights to mitigate on the Saddle Creek North property for impacts associated with the Saddle

Crest project. In discussions with the USFWS and CDFG, potentially suitable areas for mitigation opportunities were identified; thus, it is the intent of the applicant to implement all off-site mitigation for the proposed project within suitable habitat on Saddle Creek North.

Mitigation measures are recommended for those impacts determined to be significant to sensitive biological resources. As stated in *CEQA Guidelines* Section 15370, mitigation includes:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation Measures

All mitigation measures apply to both the proposed project and the non-clustered scenario except where otherwise indicated (i.e., Mitigation Measure MM 3.3-4 Coast Live Oak Trees)..

MM 3.3-1A Special-Status Plants: To mitigate impacts to special-status plant species, the applicant shall implement the following measures:

- Impacts to foothill mariposa lilies shall be mitigated through off-site translocation and/or seed collection/off-site seeding onto a suitable location such as the preserved Saddle Creek North property.
- Impacts to chaparral nolina shall be mitigated through off-site translocation and/or seed collection/off-site seeding onto the preserved Saddle Creek North property.

MM 3.3-1B Special-Status Plant Planting Plan: Prior to any ground disturbance, the applicant shall prepare a Special Status Plant Planting Plan for the foothill mariposa lily and the chaparral nolina. The plan shall include adaptive management practices that will ensure a minimum 90 percent survivorship which will be verified by the monitoring biologist. At a minimum, the plan shall include a description of the existing conditions of the receiver site(s), goals and timeline, transplanting and/or seed collection/off-site seeding or installation methods, monitoring procedures, plant spacing, adaptive management strategies, and maintenance requirements which will be reviewed and approved by the monitoring biologist.

MM 3.3-1C Environmental Awareness Program: As part of the mitigation plan to mitigate indirect impacts to special-status plants, sensitive natural communities, preserved open space and wildlife corridors, the applicant shall implement the following measures:

- The applicant shall implement a resident Environmental Awareness Program intended to increase awareness to residents of the sensitive plants, wildlife and associated habitats that occur in the preserved open space areas. The

intention of the program shall be to encourage active conservation efforts among the residents to help conserve the habitats in the preserved open space. The program shall address inadvertent impacts from the introduction of invasive plant species. At a minimum, the Environmental Awareness Program shall include the following components:

- Informational kiosks shall be constructed at entrance points to hiking and equestrian trails and at various locations along the fence line that separates the project site and the open space area to inform residents and trail users on the sensitive flora and fauna that rely on the habitats found within the preserved open space. The intent of these kiosks is to bring awareness to the sensitive plants, wildlife and associated habitats which occur in the area.
- The applicant shall provide residents or the Home Owners Association (if applicable) with a brochure which includes a list of plant species to avoid in residential landscaping to prevent the introduction of invasive plant species to the surrounding natural communities.

MM 3.3-1D Preconstruction Surveys for Special-Status Wildlife: Prior to disturbance activities, clearance surveys for special-status animal species shall be performed by a qualified biologist within the boundaries of disturbance. If any special-status animals are found on the site, a qualified biologist(s) with a CDFG Scientific Collection Permit shall relocate these species to suitable habitats within surrounding open space areas that would remain undisturbed, unless the biologist determines that such relocation cannot reasonably be accomplished at which point CDFG will be consulted regarding whether relocation efforts should be terminated. Relocation methods (e.g., trap and release) and receiver sites shall be verified and approved by the CDFG prior to relocating any animals.

Active Sand Diego woodrat dens (i.e., houses or nests) shall be flagged and avoided whenever it is feasible to do so, as determined by a qualified biologist. If avoidance is not feasible, the houses shall be dismantled by hand under the supervision of the biologist. If young are encountered during the dismantling process, the material shall be placed back on the house and the house shall remain unmolested for two to three weeks in order to give the young enough time to mature and leave the house on their own accord. After two to three weeks, the nest dismantling process may begin again. Nest material shall be moved to suitable adjacent areas (oak woodland, scrub, or chaparral) that shall not be disturbed.

MM 3.3-1E Nesting Bird Surveys: All vegetation clearing for construction and fuel modification shall occur outside of the breeding bird season, between September 1 and February 14 (fall and winter) to ensure that no active nests would be disturbed unless clearing and/or grading activities cannot be avoided during that time period.

If clearing and/or grading activities cannot be avoided during the breeding season, all suitable habitats shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist prior to removal. Suitable nesting habitat on the project site includes grassland, scrub, chaparral, and woodland communities.

If any active nests are detected, the area shall be flagged, along with a 300-foot buffer (or appropriate buffer as determined by the monitoring biologist), and shall be avoided until the nesting cycle is complete or it is determined by the monitoring biologist that the nest is no longer active.

MM 3.3-1F Use of Buffers Near Active Bat Roosts: During the November 1 to March 31 hibernation season, work shall not be conducted within 100 feet of woodland habitat that provides suitable bat roosting habitat. Bat presence is difficult to detect using emergence surveys during this period due to decreased flight and foraging behavior. If a qualified bat biologist determines that woodland areas do not provide suitable hibernating conditions for bats and they are unlikely to be present in the area, work may commence as planned.

MM 3.3-1G Bat Maternity Roosting Season: Night-time evening emergence surveys and/or internal searches within large tree cavities shall be conducted by a qualified biologist during the maternity season (April 1 to August 31) to determine presence/absence of bat maternity roosts near wooded project boundaries. All active roosts identified during surveys shall be protected by a buffer to be determined by a qualified bat biologist. The buffer will be determined by the type of bat observed, topography, slope, aspect, surrounding vegetation, sensitivity of roost, type of potential disturbance, etc. Each exclusion zone would remain in place until the end of the maternity roosting season. If no active roosts are identified then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated.

Operations may continue for many years. Surveys do not need to be repeated annually unless additional clearing of potential roosting or hibernation habitat may occur outside of the non-roosting season.

MM 3.3-1H Bat Roost Replacement: All special-status bat roosts that are destroyed by the project shall be replaced at a 1:1 ratio on-site with a roost suitable for the displaced species (e.g., bat houses for colonial roosters). The design of such replacement habitat shall be coordinated with CDFG. The new roost shall be in place prior to the time that the bats are expected to use the roost (e.g., prior to April 1 if the roost destroyed by the project was used by a maternity colony), and shall be monitored periodically for five years to ensure proper roosting habitat characteristics (e.g., suitable temperature and no leaks). The roost shall be modified as necessary to provide a suitable roosting environment for the target bat species.

MM 3.3-2 Sensitive Natural Communities: To mitigate impacts to coastal sage scrub, white sage scrub and needlegrass grassland, the applicant shall implement the following mitigation measures:

- Impacts to coastal sage scrub may be mitigated through payment into the NCCP/HCP in-lieu fee program. This shall only apply to those areas within the property that are located within the in-lieu fee coverage area and will comply with the NCCP/HCP's Construction Related Mitigation Measures. As an alternative to payment into the NCCP/HCP in-lieu fee program,

impacts to coastal sage scrub within the in-lieu fee coverage area may be mitigated through off-site restoration/enhancement.

- Prior to approval of grading plans, the project biologist shall review the contract specifications to verify that the NCCP/HCP's Construction Related Minimization/Mitigation Measures relating to removal of coastal sage scrub will be complied with and will provide written evidence to Manager, OC Planning or designee in the form of a note on the grading plans that this condition has been completed.
- Impacts to coastal sage scrub located on the site, but outside of the in-lieu fee coverage area shall be mitigated through off-site restoration/enhancement. The applicant shall acquire mitigation land off-site for restoration/enhancement of similar habitat at a ratio of at least 1:1 for coastal sage scrub and white sage scrub and a ratio of at least 0.75:1 for needlegrass grassland (off-site). Off-site mitigation for impacts to sensitive plant communities may also include mitigation opportunities on Saddle Creek North.
- A habitat restoration plan shall be prepared prior to any ground disturbance. The plan shall include adaptive management practices to achieve the specified ratio for restoration/enhancement At a minimum, the plan shall include a description of the existing conditions of the receiver site(s), goals and timeline, installation methods, monitoring procedures, plant spacing, adaptive management strategies, and maintenance requirements which will be reviewed and approved by the monitoring biologist to ensure the sensitive communities referred to above re-established successfully at the ratios set forth above.

MM 3.3-3 Jurisdictional Waters: To mitigate for impacts to jurisdictional waters, the applicant shall adopt the following measures in consultation with the regulating agencies (USACOE, CDFG, and RWQCB, where applicable):

- The applicant shall provide on- and off-site replacement and/or restoration/enhancement of USACOE, RWQCB and CDFG jurisdictional waters and wetlands at a ratio no less than 1.5:1. Off-site replacement may include mitigation on Saddle Creek North and/or include the purchase of mitigation credits at an agency-approved off-site mitigation bank.
- If replacement and/or restoration/enhancement would occur, a restoration plan shall be prepared that describes the location of restoration and provides for replanting and monitoring for a three year period following construction.

  If replacement or restoration would occur, a restoration plan shall be prepared that describes the location of restoration and provides for replanting and monitoring for a three-year period following construction.

MM 3.3-4 Coast Live Oak Trees: For impacts to coast live oak trees, the applicant shall incorporate the following mitigation measures (many of which have been addressed in the Tree Management and Preservation Plan for the proposed project (Appendix D.2).

- The applicant shall plant various sized trees, seedlings, and site-collected acorns within the landscaped portion of the proposed development as well as

within the oak woodlands to be preserved on-site to restore/enhance these "receiver areas." The planting of 15-gallon oak trees along with a variety of other sized oak trees would add diversity to the restoration areas and improve the health and sustainability of all trees in the mitigation program. Trees shall be replaced at a 5:1, 8:1, 10:1, 12:1, or 15:1 replacement ratio depending on the size of the tree.

- A total of 2,281 coast live oak trees shall be planted, including up to 2,000 acorns and 281 saplings and young trees ranging in size from one-gallon containers to 66-inch boxes. Approximately 12 to 30 percent of the mitigation tree planting (a minimum of 250 trees and a maximum of 300 trees) shall occur in transition areas, such as the perimeter areas of the development and within the fuel modification areas. The remaining 70 to 88 percent of the mitigation trees shall be planted within receiver areas within and around the oak woodlands that are to be preserved on-site.
- Coast live oak trees located within the fuel modification zones that require pruning shall comply with Orange County Fire Authority requirements. Trees shall be pruned by a qualified arborist specializing in the management and care of this tree species in consultation with the County Biological Resources Monitor.
- Prior to the issuance of any grading permits or recordation of a subdivision map which creates building sites, whichever occurs first, the applicant shall obtain the approval of the Manager, OC Planning, of a tree preservation plan for the property. The Manager of OC Parks is to be consulted if the plan involves off-site tree mitigation in an OC Parks facility.
- A five-year monitoring program shall be prepared that includes performance standards and criteria for evaluating success.

MM 3.3-5 Wildlife Movement Corridor

- Vegetation thinning shall occur only during daylight hours.
- During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the wildlife movement corridor and preserved habitat areas.
- The construction contractor shall stage equipment in areas that will create the greatest distance between construction-related noise sources and the wildlife movement corridor and preserved habitat areas during all project construction.
- All construction work shall occur during the daylight hours. In addition, construction activities shall not be permitted outside the hours of 7:00 AM and 8:00 PM, Monday through Saturday, excluding federal holidays.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.
- A native vegetation buffer shall be installed to serve as a barrier to minimize the risk of introducing invasive, exotic plant species near the corridor.

- Signs shall be installed to educate future residents of the project about the wildlife corridor and ensure that trash, debris, and disturbance by trespassing or dogs are not permitted within or near the corridor.

3.2.8 Impact Determination

Regarding Impact 3.3.1, the proposed project and non-clustered scenario would result in significant impacts to special-status plant and wildlife species during both construction and operation, including foothill mariposa lily, chaparral nolina, reptile species, bat species, nesting birds, and mammal species. Implementation of Mitigation Measures MM 3.3-1 (A through H) and MM 3.3-2 would reduce impacts to special-status plant and wildlife species, including plant species such as foothill mariposa lily and chaparral nolina, as well as potentially occurring special-status reptile, bat and mammal species included in Table 3.3-3, as well as nesting birds protected under the MTBA and Fish and Game Code (3503) during both construction and operation to less than significant with mitigation. Impacts to habitat supporting sensitive species would also be considered less than significant following the implementation of mitigation measures. . In addition, Project Design Features PDF-6, PDF-9, PDF-43, PDF-44, PDF-46, and PDF-49 would also ensure that impacts to special-status species and sensitive habitat are less than significant. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation. Neither the proposed project nor the non-clustered scenario would substantially reduce habitat for any wildlife or plant species, reduce plant or wildlife populations below self-sustaining levels within the region or threaten or eliminate a plant or animal community.

Regarding Impact 3.3.2, construction of the proposed project and non-clustered scenario would result in significant impacts to sensitive natural communities, including coast live oak, sagebrush scrub, sagebrush scrub/ruderal, needlegrass, and white sage scrub. However, mitigation measures and project design features have been included to reduce potential impacts. Mitigation Measure MM 3.3-2 includes payment into the NCCP/HCP in-lieu fee program, off-site restoration/enhancement and preparation of a habitat restoration plan to mitigate impacts to sensitive communities. Mitigation Measure 3.3-4 would protect cost live oaks within the project site, including those located within fuel modification zones. Project Design Feature PDF-1 under the proposed project would preserve approximately 51 acres that includes sensitive natural communities. In addition, Project Design Features PDF-7, PDF-8, PDF-44, PDF-45 and PDF-46 which include a Tree Management and Preservation Plan, protection from invasive species, protection of oak trees, and compliance with Construction Minimization Measures indentified in the NCCP/HCP would also reduce impacts to sensitive natural communities to a less than significant level. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation.

Construction of the proposed project and the non-clustered scenario would result in impacts to jurisdictional streambed and riparian habitat (Impact 3.3.3). Implementation of Mitigation Measure MM 3.3-3 would reduce impacts to less than significant.

The proposed project and non-clustered scenario would result in less than significant impacts related to wildlife movement or the use of wildlife corridors, after the implementation of Mitigation Measures MM 3.3-1C and MM 3.3-5, and Project Design Features PDF-6, PDF-9, PDF-42, PDF-44, and PDF-49 (Impact 3.3.4). The proposed project would also include PDF-1 which would further reduce impacts related to wildlife movement.

Regarding Impact 3.3.5, the proposed project and non-clustered scenario would conflict with local tree preservation policies, resulting in significant impact. Implementation of Mitigation Measure MM 3.3-4, as well as Project Design Features PDF-1, PDF-7, PDF-8 through PDF-45 would reduce impacts to below significant. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which could increase overall site disturbance and have a greater effect, though impacts would still be less than significant after mitigation.

The proposed project would not result in a conflict with applicable habitat conservation planning documents (Impact 3.3.6), after the implementation of Mitigation Measure MM 3.3-4, and Project Design Features PDF-1, PDF-6 though PDF-9, PDF-44 though PDF-46, and PDF-49. The non-clustered scenario would include MM 3.3-4 and Project Design Features PDF-6 though PDF-9, PDF-44, PDF-45, and PDF-49. Project Design Feature PDF-1 would not be implemented for the non-clustered scenario, which would increase overall site disturbance and have a greater effect. Impacts from the non-clustered scenario would remain potentially significant.

The proposed project and non-clustered alternative would not contribute to a significant cumulative impact to sensitive biological resources within the cumulative area. Impacts would be less than significant, and no mitigation is necessary.